



ISCC PLUS

Version 3.4.1



Copyright notice

© 2023 ISCC System GmbH

This ISCC document is protected by copyright. It is freely available from the ISCC website or upon request.

No part of this copyrighted document may be changed or amended. The document may not be duplicated or copied in any form or by any means for commercial purpose without permission of ISCC.

Document Title: ISCC PLUS

Version 3.4.1

Valid from: 1 September 2023

Content

Summary of Changes	III
1 Introduction	7
2 Scope and Normative References	8
3 Governance	9
4 Requirements for Certification Bodies and Auditors	9
5 System Basics	9
5.1 Acceptance of Other Sustainability Schemes under ISCC PLUS	10
5.1.1 Forest Biomass under ISCC PLUS	11
5.2 Material Eligible for ISCC PLUS Certification	11
5.3 Raw Material Category	12
5.4 Requirements for CO ₂ Certifications	14
5.5 Post-Consumer and Pre-Consumer Materials	15
5.6 Potential Ocean-bound Plastic	17
5.7 Voluntary Add-Ons under ISCC PLUS	18
5.8 Elements of the Supply Chain under ISCC PLUS	18
5.8.1 Point of Origins for Waste Material	18
5.8.2 Processing Units and Final Product Refinement	19
5.8.3 Dependent Storage Facilities in the Framework of the Certification of a Third Party	20
5.8.4 Brand Owners	20
6 Waste and Residues	20
7 The Circular Economy	21
7.1 Reuse, Recovery and Recycling	21
7.2 Mechanical and Chemical Recycling	22
7.3 Additional Requirements for Recycling according to EN 15343	23
8 Sustainability Requirements	25
9 Traceability and Chain of Custody	25
9.1 Requirements for Sustainability Declarations	26

9.2	Self-Declarations/ Self-Assessment for Farms or Plantations	28
9.3	Mass Balance Calculation.....	28
9.3.1	Credit Transfer	29
9.3.2	Mass Balancing Approach under ISCC PLUS	30
9.3.3	Consideration of Additives, Masterbatches and Non-sustainable Organic Content for Mass Balancing.....	34
9.3.4	Use of Consumption Factors	34
9.3.5	Requirements for Mass Balancing of Renewable Electricity in Electrolysis Processes.....	35
9.3.6	Consideration of Hetero Atoms	35
9.4	Controlled Blending	36
10	Audit Requirements and Risk Management.....	37
11	GHG Emissions	37
11.1	Deviations with respect to Emission Factors	37
11.2	Calculation of Regional GHG Values for Cultivation (e_{ec})	38
11.3	Calculation of Individual GHG Values for Cultivation (e_{ec})	38
11.4	Aggregation of Different GHG Values.....	38
11.5	Allocation of GHG Emissions.....	38
11.6	Life Cycle Coverage	38
12	Group Certification	38
12.1	Certification Approach for Country Dealers / Limited Risk Distributors (LRD).....	39
12.2	Group Certification Approach for Final Product Refinement Activities.....	40
	ANNEX I – ISCC EU and ISCC PLUS: Overview Differences.....	42
	ANNEX II – Social Criteria for Potential Ocean-bound Plastic	46

Summary of Changes

The following is a summary of all content changes to the previous version of the document. Other changes, e.g. corrections of spelling mistakes, are not listed.

Summary of changes made in version 3.4.1	Chapter
<ul style="list-style-type: none"> • Added: “and for industrial application of the respective raw materials” • Added: “and further developments” • Added: “and ISCC CORSIA” • Added: “ISCC CORSIA is the certification system to demonstrate compliance with the requirements for sustainable aviation fuels in the framework of the Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSIA).” • Added: “ISCC is also a provider of market specific solutions. The ISCC Japan FIT standard for palm kernel shells and palm trunks sets out the requirements in compliance with the Japan FIT system approved by the Ministry for Economy, Trade and Industry Japan. In addition, ISCC Solid Biomass NL certification system can be used by system users to comply with the Dutch legal sustainability requirements for solid biomass for energy applications.” 	1
<ul style="list-style-type: none"> • Added: “at this point in time” • Added: “or other authorities” 	3
<ul style="list-style-type: none"> • Added: “covering additional raw materials, processes and supply chains” 	5
<ul style="list-style-type: none"> • Updated: “The recognition of voluntary schemes other than ISCC requires at least a positive equivalence benchmarking result and the performance of a pilot audit, in which an independent and competent auditor compares the interpretation of the two standards within the framework of a pilot certification confirming the findings of the equivalence benchmark. ISCC will consider benchmarks for potential mutual recognition only with other multi-stakeholder voluntary schemes taking into account governance, sustainability and traceability criteria as well as integrity measures.” 	5.1
<ul style="list-style-type: none"> • New Subchapter: Forest Biomass under ISCC PLUS 	5.1.1
<ul style="list-style-type: none"> • Updated: “ <ul style="list-style-type: none"> - All types of agricultural and forestry raw materials, - Biogenic wastes/residues, - Non-fossil materials, - Circular materials, - Other non-conventional feedstock” 	5.2
<ul style="list-style-type: none"> • Updated: “Bio-circular and circular” • Updated: “re-distributed, re-furbished, re-manufactured” 	5.3

Summary of changes made in version 3.4.1	Chapter
<ul style="list-style-type: none"> • Added: “Circular feedstock can be further differentiated in (a) organic (fossil-based) materials like (e.g. mixed plastic waste, waste textiles, end-of-life tires, etc.) and (b) inorganic materials like metals, inorganic acids, minerals, metal salts etc.” • Renaming raw material category “renewable” to “renewable-energy-derived” • Specification on the requirements to use renewable electricity for the production of renewable-energy-derived materials • Description of the differences between the raw material category renewable energy and the other raw material categories under ISCC PLUS • Guidance on the combination of raw material categories 	
<ul style="list-style-type: none"> • New Subchapter: Requirements for CO₂ Certifications 	5.4
<ul style="list-style-type: none"> • Subchapter moved from Chapter 7 to Chapter 5 • Added: “(see also ISO 14021:2021)” • Added: “(see also ISO 14021:2021)” • Added: “process from which it was generated” • Added: “Examples of process involved in additional process step can include e.g.: <ul style="list-style-type: none"> - Melting, - Extrusion, - Regranulating, - Compounding” • Added: “For the internal processing of waste streams originating from non-sustainable feedstocks, the requirements are: <ul style="list-style-type: none"> - The processed material is not used in the same production process which it originates from - Existence of an official waste code for the material - Additional processing step(s) - The proportion of the reused circular pre-consumer material originating from the same site should be significantly lower (relevant data must be provided, which can be based on the product or on the production process) than the proportion of “virgin” raw material used. If a processing unit generates a higher share of waste and thus circular over time, evidence must be provided justifying that waste was not intentionally generated.” • Added: “If categories of rework, regrind or scrap generated is originating from ISCC certified sustainable materials, then it is handled as the following: <ul style="list-style-type: none"> - If it can be processed internally, the sustainable credits remain in the mass balance and can be further allocated to the outputs (taking into consideration the rules for certified attribution, e.g. process feasibility). 	5.5

Summary of changes made in version 3.4.1	Chapter
<ul style="list-style-type: none"> - If it is sold to an external facility for re- or further processing they are to be classified as co-product with the option to attribute sustainable shares to any output of the production process (keeping in mind the general requirements for certified attribution such as technical feasibility). - If it is discarded without any re- or further processing must be taken into account as a production loss for the conversion factor determination. 	
<ul style="list-style-type: none"> • New Subchapter: Potential Ocean-bound Plastic 	5.6
<ul style="list-style-type: none"> • Updated to “ISO 14021:2021” 	5.8.1
<ul style="list-style-type: none"> • Specification on the activities under final product refinement, deletion of “laminating” and addition of further examples • Added: “Final product refinement (FPR) activities shall not substantially modify the certified product or material.” 	5.8.2
<ul style="list-style-type: none"> • New Subchapter: Dependent Storage Facilities in the Framework of the Certification of a Third Party 	5.8.3
<ul style="list-style-type: none"> • Added: “Please find all relevant information on the ISCC website.” 	5.8.4
<ul style="list-style-type: none"> • Added: “Activities of a mechanical recycling plant can be: <ul style="list-style-type: none"> - Sorting (e.g. dry/wet sorting, float/sink separation, etc.) - Washing - Shredding/grinding/crushing - Compressing - Melting/pelletizing” 	7.2
<ul style="list-style-type: none"> • New subchapter: Additional Requirements for Recycling according to EN 15343 	7.3
<ul style="list-style-type: none"> • Added: “There is an exception for producers of agricultural biomass (farms/plantations) or forest biomass and first gathering points sourcing only agricultural biomass or forest biomass. For those economic operators the mass balance period can be up to twelve months.” 	8
<ul style="list-style-type: none"> • Added: “There is an exception for producers of agricultural biomass (farms/plantations) or forest biomass and first gathering points sourcing only agricultural biomass or forest biomass. For those economic operators the mass balance period can be up to twelve months.” 	9.3
<ul style="list-style-type: none"> • Updated to: “Multi-site-credit transfer for joint ventures” 	9.3.1
<ul style="list-style-type: none"> • Updated to: “attributing” • Renaming the two attribution mass balancing options (“mass determination” to “attribution determined by mass”; “energetic determination” to “attribution determined by energy”) 	9.3.2

Summary of changes made in version 3.4.1	Chapter
<ul style="list-style-type: none"> • Inclusion of “certified energy excluded attribution” as a supplementing option for the mass balancing options “attribution determined by mass” and “attribution determined by energy” next to the already established “certified free attribution” • Added: “In case two or more processing units that can be clearly separated from each other are located at the same site (one ISCC PLUS certificate), the system boundaries for the attribution from input to output can be separately defined for each certified processing unit” 	
<ul style="list-style-type: none"> • Change in consideration of additives: removal of requirement for single additive, total amount of additives remains requirement for neglectation from the mass balance 	9.3.3
<ul style="list-style-type: none"> • Specification on the consideration of hetero atoms in the calculation of the sustainable share of a product • Handling of oxygen and nitrogen from ambient air 	9.3.6
<ul style="list-style-type: none"> • Clarification LRD: Branches of the same legal entity at a different address can also be considered as LRDs 	12.1
<ul style="list-style-type: none"> • New Subchapter: Group Certification Approach for Final Product Refinement Activities 	12.2
<ul style="list-style-type: none"> • Incorporation of certification examples 	ANNEX I
<ul style="list-style-type: none"> • Added: ANNEX II – Social Criteria for Potential Ocean-bound Plastic 	ANNEX II

1 Introduction

ISCC – International Sustainability and Carbon Certification (ISCC) is a certification system that offers solutions for the implementation and certification of sustainable, deforestation-free and traceable supply chains of agricultural, forestry, waste and residue raw materials, non-bio renewables and recycled carbon materials and fuels. Independent third-party certification ensures compliance with high ecological and social sustainability requirements, greenhouse gas emissions savings (on a voluntary basis under ISCC PLUS) and traceability throughout the supply chain. ISCC can be applied globally in all markets including the food, feed, chemical and energy markets and for industrial applications of the respective raw materials.

*Solution provider
for sustainable
supply chains*

ISCC applies strict rules for the conservation of valuable landscapes as well as the environmentally friendly and socially responsible production of agricultural and forestry raw materials. ISCC does not accept any form of compensation or remuneration for breaches of system requirements.

*Entire supply
chains and
different markets*

*No
compensation
accepted for
system breaches*

Since 2006 ISCC has continued to develop through an open multi-stakeholder process involving representatives from agriculture, processing and refining industries, trade and NGOs with ecological and social backgrounds. Today, ISCC is one of the world's leading certification systems. The interests of the different stakeholders are represented in the ISCC Association (ISCC e.V.). At regular regional and technical stakeholder committees in Asia, Europe, North- and South America, experiences and improvements of the ISCC System and further developments are discussed and – when possible – lead to continuous improvements of the ISCC system.

*Multi-stakeholder
organisation*

ISCC operates different certification systems for different markets. These systems are ISCC EU, ISCC PLUS and ISCC CORSIA. ISCC EU is a certification system to demonstrate compliance with the legal sustainability requirements specified in the Renewable Energy Directive (RED) II. ISCC PLUS is a certification system for all markets and sectors not regulated by the RED II, such as the food, feed or energy markets and for diverse industrial applications. Under ISCC PLUS, all types of agricultural and forestry raw materials, waste and residues, non-bio renewables and recycled carbon materials and fuels are covered. ISCC CORSIA is the certification system to demonstrate compliance with the requirements for sustainable aviation fuels in the framework of the Carbon Offsetting and Reduction Scheme for International Civil Aviation (CORSIA).

*Different ISCC
systems*

ISCC is also a provider of market specific solutions. The ISCC Japan FIT standard for palm kernel shells and palm trunks sets out the requirements in compliance with the Japan FIT system approved by the Ministry for Economy, Trade and Industry Japan. In addition, ISCC Solid Biomass NL certification system can be used by system users to comply with the Dutch legal sustainability requirements for solid biomass for energy applications.

*Market specific
solutions*

ISCC offers a “One-Stop-Shop” solution, as the ISCC EU and ISCC PLUS schemes are widely harmonized. With only one audit an operation can obtain both an ISCC PLUS and ISCC EU certification. The main criteria of the ISCC sustainability scheme are based on the RED II sustainability requirements, with additional sustainability requirements on environmental and social issues, which go beyond legal requirements.

ISCC as a “One-Stop-Shop” solution

During the development of its systems, ISCC considers and complements best practice initiatives like ISEAL Alliance and international standards like ISAE 3000¹ and the International Organisation for Standardization (ISO). This facilitates and enables a consistent and reliable application of ISCC especially with respect to quality control, risk management, planning and conducting of audits as well as sampling processes, surveillance and reporting mechanisms. Furthermore, ISCC operates the ISCC Integrity Program, which is a tool used to continuously monitor the performance of the ISCC System Users and Certification Bodies (CBs) cooperating with ISCC to ensure and maintain the high-quality standard and credibility of ISCC.

Best practices

2 Scope and Normative References

As the ISCC PLUS and ISCC EU certification schemes are widely harmonized, the ISCC EU System Documents in general apply for ISCC PLUS. This means that the ISCC EU System Documents also serve as system documents for the ISCC PLUS scheme. There are some different requirements between ISCC EU and ISCC PLUS, especially with regard to traceability, chain of custody and GHG emission calculation which ISCC would like to emphasize in this document. This document serves as an additional compulsory source of information to the ISCC EU System Documents for a certification under ISCC PLUS. This approach is intended to be a facilitation for companies, certification bodies and other interested parties as they only have to refer to one set of system documents and duplication of requirements is avoided.

ISCC EU System Documents apply also for ISCC PLUS

The ISCC EU System Documents lay down the general ISCC system principles which are (apart from the different requirements specified in this document) also valid under ISCC PLUS. These documents can be found on the ISCC website in their currently valid version.

References made within the ISCC EU System Documents with regard to the RED II requirements for sustainable fuels (for example biofuels, bioliquids or biomass fuels) also apply under ISCC PLUS for all other products such as food, feed or biochemicals (e.g. “... to fulfil the requirements of the RED II is meant comparably for ... to fulfil the requirements of the ISCC sustainability standard”). Any obligatory regulatory requirements that are specific to the EU

No application of RED II GHG saving requirements under PLUS

¹ International Standard on Assurance Engagements 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information.

biofuels sector such as the EU Reporting Obligation or the minimum GHG emission saving requirement do not apply under ISCC PLUS.

3 Governance

The ISCC EU System Document 102 “Governance” lays down the general principles according to which the ISCC system is governed globally. It specifies the goals and internal structure of ISCC, as well as the relationship between ISCC and its stakeholders.

General principles

This System Document applies equally for ISCC EU and ISCC PLUS, with the exception that ISCC PLUS is at this point in time not a certification scheme recognized by the European Commission or other authorities and therefore the obligation to report to the European Commission on its activities and status does not exist.

4 Requirements for Certification Bodies and Auditors

The ISCC EU System Document 103 “Requirements for Certification Bodies and Auditors” specifies the requirements for Certification Bodies (CBs) to be allowed to conduct certifications under the ISCC standard and thus duties of CBs cooperating with ISCC and performing certification services according to ISCC. Furthermore, it lays down the requirements and necessary qualifications for auditors conducting ISCC audits.

Requirements for ISCC recognition

This System Document applies equally for ISCC EU and ISCC PLUS.

5 System Basics

The ISCC EU System Document 201 “System Basics” describes the fundamentals of the ISCC system. It outlines the basics with respect to the set-up of the ISCC system and the certification criteria regarding sustainability, traceability and the chain of custody, as well as greenhouse gas emissions (voluntary under ISCC PLUS). The description of participants in the supply chain who are subject to certification is also covered. Additionally, the registration, audit and certification processes are described as well as the requirements for the issue and validity of ISCC certificates.

Fundamentals of the ISCC system

This System Document applies equally for ISCC EU and ISCC PLUS, with some differing requirements under ISCC PLUS which are described in the following sub-chapters.

In order to satisfy certain market requirements, which may not have been covered within the ISCC PLUS system and existing add-ons², ISCC will

² Add-ons are additional modules of ISCC, which can be used on top of the ISCC core-requirements

consider the development of further extensions of the system with respect to voluntary add-ons and scopes, covering additional raw materials, processes and supply chains.

5.1 Acceptance of Other Sustainability Schemes under ISCC PLUS

Other voluntary schemes, other than ISCC, may be accepted under specific circumstances. ISCC will only consider mutual recognition with other multi-stakeholder voluntary schemes that also employ governance, sustainability and traceability criteria as well as integrity measures. Also, a benchmark demonstrating equivalence of the schemes needs to be conducted. An independent, qualified auditor must compare the interpretation of the two standards within the framework of a pilot audit to confirm the findings of the equivalence benchmark.

*Acceptance of
certification
schemes*

“ISCC Compliant” means that all economic operators along the supply chain must demonstrate that the relevant ISCC standard requirements have been fulfilled. Within ISCC PLUS, it must be guaranteed that the whole upstream supply chain up to the farm/plantation or point of origin is entirely ISCC certified or from a forest that is FSC certified (see 5.1.1). Any material used in an “ISCC Compliant” supply chain must consist entirely of ISCC material.³ Sustainable material coming from ISCC EU or certified raw material providers (collecting points or first gathering points or individually certified points of origin/ farms/plantations), which fulfil the above “ISCC Compliant” requirement, shall contain the statement “ISCC Compliant” on its sustainability declaration, in order to be accepted under ISCC PLUS.

ISCC Compliant

The statement “ISCC Compliant” can only be made if the ISCC certified operator has received an equivalent amount of incoming material with the statement “ISCC Compliant” on the sustainability declaration. First Gathering Points can only make this statement for deliveries from farms or plantations or forests that comply with the ISCC requirements. Collecting Points can only make this statement for materials collected from points of origin that comply with the ISCC requirements.

Incoming material with the statement “EU RED Compliant⁴” cannot be accepted under ISCC PLUS. For outgoing materials, the claim “EU RED Compliant” cannot be applied.

*EU RED
Compliant*

Material certified under any voluntary scheme other than ISCC cannot be accepted in ISCC PLUS supply chains.

When a manufacturer seeks certification of a substance made from a mix of “ISCC PLUS Compliant” and non-compliant raw materials, assurance is needed that the amount “ISCC PLUS compliant” substance does not exceed

³ Or of FSC Forest Management (FM) certified timber. At least on a quantity bookkeeping basis (see [Chapter 9](#) on Traceability and Chain of Custody)

⁴ Sustainable material has to be considered “EU RED Compliant” if the ISCC certified operator receives deliveries from suppliers that are certified to any other recognised voluntary certification scheme in the framework of the Renewable Energy Directive II.

the quantity and value of “ISCC PLUS compliant” raw material. Further information on possible claims can be found in the ISCC Logos and Claims Document.

5.1.1 Forest Biomass under ISCC PLUS

Provisionally, ISCC PLUS accepts timber from forest certified under the Forest Stewardship Council (FSC) forest management (FM) standard, to prove compliance with the ISCC PLUS requirements (Principles 2-6) for forest biomass from the forest⁵. The acceptance is based on a benchmark conducted with the FSC FM standard. An additional verification must be conducted to prove compliance with the requirements for the ISCC EU 202-3 Forest Biomass Principle 1. Compliance with this principle can be proven on the level of the management system at the forest sourcing area (individual certification) or on a national or subnational level. Scientific literature, data from the forest management unit or EU projects (e.g. REDIIIBIO) and other relevant data can be used to prove compliance with the requirement.

Purchasing activities of non-ISCC certified forest biomass from the forest sourcing area up to the First Gathering Point (FGP) can only be part of the ISCC PLUS supply chain, when the FGP is in the position to include relevant information of the forest sourcing area. This includes the following:

- > the origin of the wood (sourcing area, etc.)
- > the type of wood (wood species) on the relevant batches
- > the harvested forest biomass volume
- > the FSC Forest Management certificate

In this case, the FGP is responsible to keep and track the required information and must inform the CB if there are any changes.

5.2 Material Eligible for ISCC PLUS Certification

Under ISCC PLUS the following materials contributing to the development of the Circular Economy and Bioeconomy can be certified:

Eligible material

- > All types of agricultural and forestry raw materials
- > Biogenic wastes/residues
- > Non-fossil materials
- > Circular materials
- > Other non-conventional feedstock

Furthermore, all materials that can be covered under ISCC EU or ISCC CORSIA can also be certified under ISCC PLUS. The certification of materials and products not stated on neither of these lists are potentially possible after

⁵ Under the condition that the forest is not violating ISCC Principle 2, Criteria 2.1.3 Conversion of natural and semi-natural forests to plantation forests

consultation with and confirmation by ISCC. Relevant information that needs to be provided when submitting material requests to ISCC is indicated in the respective material lists.

The eligible material lists are not exhaustive. The purpose is to standardize/harmonize the material descriptions used by system users on ISCC certificates. System users shall adhere to the material list of the respective ISCC scheme they employ.

5.3 Raw Material Category

Under ISCC PLUS the following three raw material categories (arising at the beginning of the supply chain) can be certified:

*Categories for
the type of raw
material*

- > **Bio** feedstocks are derived from virgin biomass, whereas biomass refers to the biodegradable fraction of products from agriculture, forestry and related industries including fisheries and aquaculture, e.g. corn, sugarcane, rapeseed etc.
- > **Bio-circular and circular** feedstocks are materials at the beginning of the supply chain considered as a waste/ processing residue that are not landfilled or energetically used, but instead re-used, re-distributed, re-furbished, re-manufactured or recycled in a loop without dropping out of the economy.
 - “bio-circular” refers to waste and residues of biological origin from agriculture, forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste (e.g. UCO, tall oil, food waste, etc.)
 - “circular” (incl. technical-circular) means feedstock derived from the mechanical and/or chemical processing of recyclable materials of non-biological origin (fossil-based). Circular feedstock can be further differentiated in (a) organic (fossil-based) materials like mixed plastic waste, waste textiles, end-of-life tires, etc. and (b) inorganic materials like metals, inorganic acids, minerals, metal salts, etc.
- > **Renewable-energy-derived** feedstock category comprises products which use renewable energy (e.g., renewable electricity or other renewable energy sources except for biomass) as an integral part of the reaction (e.g. redox reactions, electrolysis, see certification example 3 in [Annex I – 4. Certification Examples](#) and Chapter 9.3.5 on mass balancing of electrolysis processes). The use of renewable energy for utilities (steam, heat) or building energy consumption in a material production process is not sufficient to claim the material as “renewable-energy-derived”.

Renewable electricity is defined as electricity generated from renewable non-fossil sources, namely wind, solar (solar thermal and solar photovoltaic) and geothermal energy, ambient energy, tide, wave

and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogas⁶. If the renewable electricity is produced from feedstocks that are covered by the raw material categories bio, bio-circular or circular, the products produced from this electricity are covered by that respective raw material category.

The renewability of electricity can be proven via Energy Attribute Certificates⁷ (EACs) (e.g. Guarantees of Origin (GoO), in the EU or Renewable Energy Certificates (RECs, in the US), renewable power purchase agreements (PPAs) combined with EACs, comparable documentation, or via a direct connection/ link of the processing unit with the respective unit producing renewable electricity. The proof of renewability must ensure that double counting of the renewable electricity is avoided.

At a minimum, the following information must be part of the relevant documentation (i.e. for EACs, etc.⁸):

- the energy source from which the energy carrier was produced and the start and end dates of production
- the type of energy or energy carrier (e.g., electricity, gas – including hydrogen, heat, or cooling)
- the identity, location, type and capacity of the installation where the energy or energy carrier was produced
- whether the installation has benefited from investment support and whether the unit of energy has benefited in any other way from a national support scheme and the type of support scheme
- the date on which the installation became operational (i.e. starting point of first electricity supply into grid)
- the date and country of issue and a unique identification number of the REC/GoO

Under ISCC PLUS, the cancellation of renewable energy certificates for the purpose of claiming a product as renewable-energy-derived may only take place as long as the renewable energy certificate is valid at the time of cancellation and cancelled no later than 18 months after the production of the respective unit of energy. A respective proof of the unit using the renewable energy must be provided during the audit.

As a prerequisite for including renewable electricity in the ISCC PLUS bookkeeping/ mass balance, the respective renewable energy certificates need to have been cancelled and can no longer be used or sold. During the certification audit it must be verified that the certified

⁶ Renewable Energy Directive (EU) 2018/2001 (RED II) Article 2(1)

⁷ In this context "certificate" does not mean an ISCC certificate but refers to guarantees of origin and equivalent documents which state the source of energy used to produce the electricity and are connected to certification systems that track electricity.

⁸ REDII, Article 19(7)

company does not claim the electricity used to produce renewable-energy-derived materials in another certification scheme.

The raw material category “renewable-energy-derived” differs from the other raw material categories under ISCC PLUS in that certification is solely focused on the renewable energy (e.g., renewable electricity) being an integral part of the reaction/production process. The other feedstocks of the production process, including material feedstocks, from which the atoms or molecules of the products may be derived, do not need to be ISCC compliant for renewable-energy-derived products (see certification example 3 in [Annex I – 4. Certification Examples](#)). This is expressed through the added term “derived” in comparison to the raw material categories bio, bio-circular or circular. For product claims, it is possible to use “renewable” instead of “renewable-energy-derived”, if the production process linked to the use of renewable energy (e.g., renewable electricity) as an integral part of the reaction is explained via further information (i.e. company website, CSR report, on-product QR code etc.)

Differentiation of renewable-energy-derived materials from other raw material categories

For multi-input processes with inputs from different raw material categories the combination of raw material categories for outgoing products is possible, if this reflects the chemical reaction leading to the presence of several inputs with different raw material categories in the certified output (see certification example 4 in [Annex I – 4. Certification Examples](#)). Even when combining different raw material categories, the amounts of certified material for each raw material category need to be kept separately in the chain of custody and traceability documentation (i.e. mass balance, sustainability declarations etc.). For reactions of ISCC compliant input material with CO₂, only the raw material category of the ISCC compliant input material can be used to describe the respective output (see certification example 1 and 2 in [Annex I – 4. Certification Examples](#)).

Multi-input processes

5.4 Requirements for CO₂ Certifications

CO₂ from the following sources can be used under ISCC PLUS:

- > Biogenic CO₂ which originates from biomass
- > Atmospheric CO₂ from direct air capture
- > Post-industrial (fossil) CO₂ captured from industrial processes, which use fossil sources to deliberately produce electricity, heat, or materials (e.g., cement, iron and steel, petrochemical industry)

CO₂ as a raw material

Biogenic CO₂ can be certified as a product and a raw material without additional requirements.

Atmospheric and fossil CO₂ can be certified only as a raw material if specific requirements are fulfilled. These requirements depend on the production

setup, which uses CO₂ as an input. As CO₂ does not contain usable energy, the energy needed to drive these production processes comes from other reactants. Hence, potential certifiable setups under ISCC PLUS must fulfil the following preconditions:

> **Post-industrial or atmospheric CO₂ and hydrogen as reactant**

If fossil or atmospheric CO₂ reacts with hydrogen, the hydrogen needs to be ISCC compliant (bio, (bio-)circular or renewable-energy-derived hydrogen) in order to claim products derived from the reaction of fossil or atmospheric CO₂ with H₂ as ISCC compliant (see certification example 1 in [Annex I – 4. Certification Examples](#)).

> **Post-industrial or atmospheric CO₂ and other materials as reactants**

CO₂ is used in the chemical industry for the production of different products (e.g. urea). The outputs of such processes can get ISCC PLUS certified if the following two requirements are both met:

- At least one other relevant process input (reactant of fossil or atmospheric CO₂) in the production process besides the fossil or atmospheric CO₂ needs to be ISCC compliant (for relevance of process inputs see certification example 2 in [Annex I – 4. Certification Examples](#)).
- Only the outputs of the process can get ISCC PLUS certified, which contain the carbon derived from the fossil or atmospheric CO₂ and / or other ISCC compliant inputs (no attribution from CO₂ to other carbon atoms allowed).

In addition, during the audit, it must be verified that the CO₂ must not be produced deliberately for the usage in the above-mentioned production processes. If these requirements are met, CO₂ can be used as a raw material under ISCC PLUS. The atoms derived from the CO₂ in the products can be taken into account to calculate the sustainable share.

For biogenic CO₂ additional claims on the origin of CO₂ can be made.

5.5 Post-Consumer and Pre-Consumer Materials

The ISCC approach covers post-consumer and pre-consumer waste. This can also include inorganic waste materials entering the circular economy.

Post-consumer material is defined as material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain (see also ISO 14021:2021).

Pre-consumer material that fall under the definition of “waste or processing residues” according to the “ISCC Flow chart to determine whether the ISCC

w/r process can be applied” (see [Chapter 6, Figure 2](#)) can also be named as “circular material/ products” under ISCC. Pre-consumer material covers e.g. material derived from waste streams during the system user’s manufacturing processes (see also ISO 14021:2021). Material that is reused in the same production process from which it was generated and can be assigned to the categories of rework, regrind or scrap generated cannot be claimed as “circular”: Treatment of pre-consumer material must undergo an additional processing step in order to be claimed as “circular”, e.g. by an official waste management company or an external company. Examples of processes involved in an additional processing step include:

- > Melting
- > Extrusion
- > Regranulating
- > Compounding

For the internal processing of waste streams originating from non-sustainable feedstocks, the requirements are:

- > The processed material is not used in the same production process which it originates from⁹
- > Existence of an official waste code for the material
- > Additional processing step(s)
- > The proportion of the reused circular pre-consumer material originating from the same site should be significantly lower (relevant data must be provided, which can be based on the product or on the production process) than the proportion of “virgin” raw material used. If a processing unit generates a higher share of waste and thus circular over time, evidence must be provided justifying that waste was not intentionally generated.

If scrap is originating from ISCC certified sustainable materials, then it is handled as the following:

- > If it can be processed internally, the sustainable credits remain in the mass balance and can be further allocated to the outputs (taking into consideration the rules for certified attribution, e.g. process feasibility).
- > If it is sold to an external facility for re- or further processing they are to be classified as co-product with the option to attribute sustainable shares to any output of the production process (keeping in mind the general requirements for certified attribution such as technical feasibility).

⁹ The output of the processes must be different. Please refer to the valid ISCC PLUS material list.

- > If it is discarded without any re- or further processing must be taken into account as a production loss for the conversion factor determination.

With regard to supply chains based on reuse and recycling of material all ISCC requirements regarding traceability, chain of custody and all other relevant ISCC requirements are fully applicable.

For marketing purposes, companies must claim their input materials and products as specific and transparent as possible to internal and external stakeholders, e.g. referring to post-consumer and/or post-industrial feedstock. The requirements of the currently valid ISCC Logo and Claims need to be followed.

5.6 Potential Ocean-bound Plastic

Potential ocean-bound plastic (OBP) is discarded plastic material in all forms that is located within 50 km of ocean coastlines. The probability is high that the plastic materials will end up in the ocean.¹⁰

Potential OBP
requirements

In addition to the ISCC PLUS requirements for plastic materials, the following requirements must be met to certify potential OBP:

- > A detailed description of how the status of the material as waste is determined
- > At least one team member of the collection team has to be interviewed by the auditor to approve the process of identifying OBP
- > Collection sites must be transparently and separately listed including the address, geo-tag, date, team members, pictures before and after cleaning and the amount collected for each day
- > The weight of amounts must be plausible and verified by the auditor

To ensure that social criteria apply, all immediate social requirements (see [ANNEX II – Social Criteria for Potential Ocean-bound Plastic](#)) have to be met. Potential OBP collection is to be done exclusively by full-time employees and no intermediate storage or sub-collectors are involved.

The company's own and downstream claims of clients must refer to "potential ocean-bound plastic" if potential OBP is included. In best practice, an explanation of OBP to external stakeholders is available (e.g. by a footnote that for potential OBP the range is 50 km from the shoreline). OBP cannot be claimed as post-/ pre-consumer material.

¹⁰ Definition is aligned with the definitions of OBP cert, Oceancycle, Zeroplastic Ocean/Prevented Ocean Plastic.

5.7 Voluntary Add-Ons under ISCC PLUS

In addition to the core requirements of ISCC PLUS, ISCC provides the option to adapt ISCC PLUS certificates to specific market requirements through voluntary add-ons. Depending on the respective add-on, it can be applied for the agricultural production area and for the entire supply chain on a voluntary basis. The modular approach ensures the fulfilment of different market requirements and continuous improvement. All voluntary add-ons can be found on the ISCC website.

Specific market requirements

5.8 Elements of the Supply Chain under ISCC PLUS

5.8.1 Point of Origins for Waste Material

Depending on the upstream origin and collection of the waste, waste management plants are defined as point of origin or as collecting point.

Points of origin are the extractor of material for downstream supply chain elements. Points of origin may aggregate waste, prepare waste for further processing, mechanically process waste without chemically transforming it (e.g. shredding, densifying or pelletizing) or provide quality assurance services (e.g. ensuring that waste conforms to agreed upon specifications). Waste plastic is prepared for introduction to the certified recycling collecting point at the Point of Origin. In any case, it must be proven at the Point of Origin that the first material in the supply chain is a waste, meaning that a.o. the material was not intentionally produced and its further use requires an additional processing step other than normal industrial practice. Further precondition for certification is compliance with national regulations for the respective material handling. The point of origin must hold appropriate licenses and permits to act as a legal waste management company or is an entity that generates recovered material as defined in ISO 14021:2021. Recovered material is defined by this ISO norm as “material that would have otherwise been disposed of as waste or used for energy recovery but has instead been collected and recovered as a material input, in lieu of new primary material, for a recycling or manufacturing process”. This means, the material enters a supply chain again as a feedstock for further production and hence promoting the circular economy.

Point of origin definition

Non-individually certified points of origin need to fill out the ISCC PLUS self-declaration to the Collecting Point of the certified material and specify the material produced according to the ISCC PLUS material list.

Here, it also needs to be indicated if post- or pre-consumer material is handled:

- > For post-consumer waste (definition in [Chapter 5.5](#)), municipal collection of private household / post-consumer plastic waste is not part of the certified supply chain and therefore a self-declaration does not need to be issued. In that case, the waste management company

providing the sorted plastic waste to the next entity in the supply chain is the point of origin.

- > For other types of collection of waste material, the entity where industrial waste / processing residues (pre-consumer material – definition in [Chapter 5.5](#)) occurs / is generated usually is defined as the point of origin.

5.8.2 Processing Units and Final Product Refinement

Chemical supply chains consist of different entities changing the properties of relevant materials/ products. Different types of feedstocks and products allow for diverse possible setups. For ISCC certificates the following types of processing units can be applied:

<p>Cracker</p> <ul style="list-style-type: none"> ▪ Breaking long-chain hydrocarbons into shorter/ simpler molecules ▪ Different methodologies possible (thermal/steam) ▪ Output: e.g. Ethylen, Propylene 	<p>(Plastic) Waste processor</p> <ul style="list-style-type: none"> ▪ Processing of (plastic) waste into (other than pyrolysis oil) products ▪ Output: e.g. circular /bio cellulose esthers 	<p>Speciality chemical plant</p> <ul style="list-style-type: none"> ▪ e.g. phenol plant, PVC site, polymer coating plant, thermal insulating plant (expanded polystyrene) ▪ Output: e.g. bio-circular butyraldehyde, propionaldehyde 	<p>Compounding plant</p> <ul style="list-style-type: none"> ▪ Mixing of different polymers (plastics), masterbatches and fillers without chemical reaction ▪ Output: e.g. circular/ bio. plastic compounds where the main polymer is specified in brackets on the certificate 	
<p>HVO plant</p> <ul style="list-style-type: none"> ▪ Processing of vegetable oils ▪ Bio-based process ▪ Crops, waste and residue-based liquid feedstocks ▪ Output: HVO 	<p>Pyrolysis plant</p> <ul style="list-style-type: none"> ▪ Processing solid feedstock into liquids ▪ Output: e.g. circular/ bio. pyrolysis oil 	<p>Polymerization plant</p> <ul style="list-style-type: none"> ▪ Processing unit reacting monomer molecules into polymers (polymer chain) ▪ Output: e.g. Polypropylene (PP), Polyethylene (PE) 	<p>Converter</p> <ul style="list-style-type: none"> ▪ Bringing polymers into bioplastics/ plastic products ▪ Output: e.g. bioplastics, milk boxes, films 	<p>Refinery</p> <ul style="list-style-type: none"> ▪ Processing of bio-based liquid feedstocks (refining) ▪ Output: e.g. refined oils, waste/ processing residues (e.g. PFAD)

Figure 1: Overview on typical processing units in chemical supply chains

For speciality chemical plants it is possible to add a more specific definition on the certificate. At the downstream end of the supply chain the last unit to be certified under the scope of a processing unit is the converter that significantly changes the physical properties of their input by putting polymer granulates into different forms (film, bottles, tubs, etc.).

If material is treated with mechanical recycling, processing units shall have the scope “Mechanical Recycling Plant”.

Mechanical recycling

It is also possible to apply tolling agreements under ISCC PLUS where a processing unit is converting sustainable material on a contractual basis for the material owner (different legal entity). Further information on those setups are provided in ISCC EU 203 “Traceability and Chain of Custody”.

Tolling agreements

Different types of companies after the converter exist that receive an ISCC certified material to manufacture a final product. Final product refinement (FPR) activities shall not substantially modify the certified material or product.

Final product refinement

FPR Activities:

- > Blowing or forming from a preform (if the process does not use a preform, the scope processing unit is necessary)
- > Cutting

- > Labelling
- > Assembling
- > Printing
- > Sealing
- > Filling

Audit requirements for final product refinement relate to conversion factors, mass balance calculations and traceability aspects.

5.8.3 Dependent Storage Facilities in the Framework of the Certification of a Third Party

Market operators often store material in external dependent storage facilities in the framework of the certification of a third party (e.g. first gathering point, collecting point, processing unit, trader with storage, final product refinement). Those dependent storage facilities can be covered according to the options as laid down in ISCC EU 203 “Traceability and Chain of Custody”. If all relevant documentation can be fully verified remotely by the auditor and the CB decides that no additional on-site visit is necessary to confirm compliance with ISCC requirements the sample audit(s) for warehouses can be conducted remotely. The precondition is a regular risk setup¹¹ with low complexity of market activities, clear documentation reflecting all traceability requirements (e.g. centralized barcode database) and a structured management system containing relevant critical control points and responsibilities.

Dependent storage facilities

5.8.4 Brand Owners

Brand owners that receive a finished good and would like to make an ISCC claim (on-product/off-product) must either be covered by certification or participate in the ISCC licensing scheme. Please find all relevant information on the ISCC website.

Brand owner certification

6 Waste and Residues

The ISCC EU System Document 202-05 “Waste and Residues” provides the principles for the certification of raw materials and feedstocks qualifying as “waste” or “residue” as their supply chains and specific certification requirements may differ from those of the conventional crop-based materials.

Certification of waste and residues

This System Document applies equally for ISCC EU and ISCC PLUS. According to the Waste Framework Directive 2008/98/EC (Article 3) a “waste” can be understood as “any substance or object which the holder discards or intends or is required to discard”. The material has reached the end of its intended life cycle. This has to be proven by relevant documentation if the material shall be eligible for an ISCC certification. System users and auditors shall use the “ISCC Flow chart for waste and residues” (Figure 2) to determine whether the ISCC w/r process can be applied.

Waste definition

¹¹ This should refer to the lowest risk according to ISCC EU 204 “Risk Management”

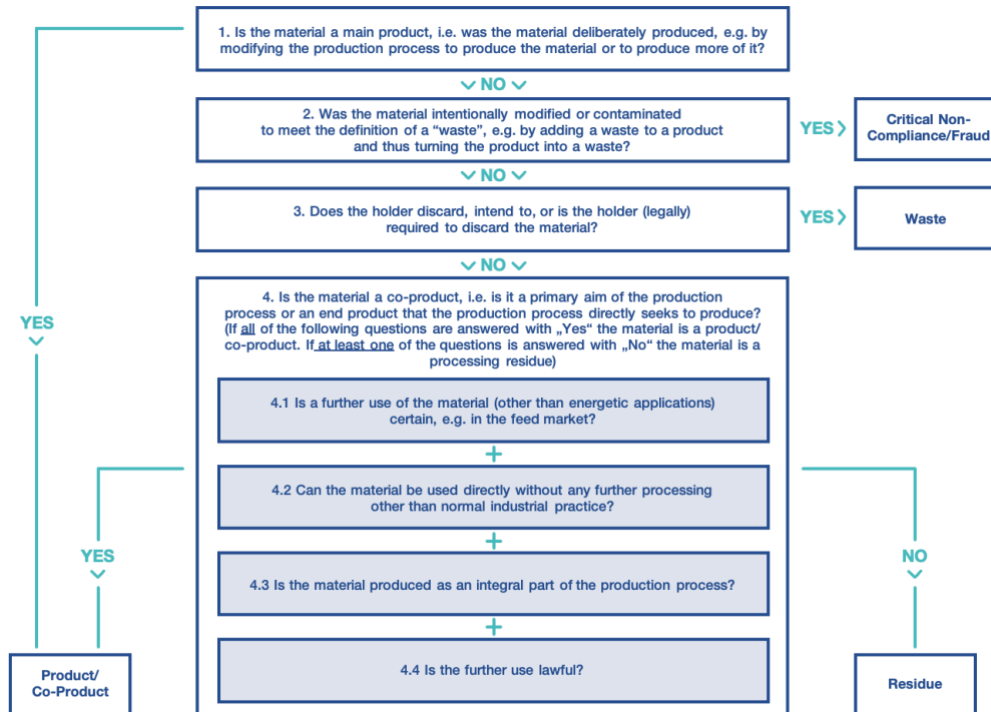


Figure 2: ISCC Flow chart to determine whether the ISCC w/r process can be applied

7 The Circular Economy

ISCC supports the development of the circular economy and consequently supports reuse, recovery and recycling with its certification approach.

The concept of circular economy aims at transitioning the actual linear value chains in our economy into a circular form. This means, economic activity shall be decoupled from the use of finite resources leading to the idea of keeping materials and products in use. Ideally, no waste is generated but material is reused, recovered or recycled.

7.1 Reuse, Recovery and Recycling

Reuse “means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived”.

Definitions

Recovery “means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy”.

Recycling is defined as “any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.”¹²

¹² Waste Framework Directive 2008/98/EC, Article 3 (13-17)

The concept of reuse, recovery and recycling is part of the waste hierarchy approach¹³ introduced by the Waste Framework Directive 2008/98/EC which shall be taken into account in the framework of ISCC. The waste hierarchy approach aims to reduce and to manage waste according to a cascading use of resources. When possible, reuse should be favored over recycling. Recycling should only take place if the further use of the waste would have required an additional processing step. The use of recycled material (e.g. recycled plastic waste) decreases the extraction and use of additional carbon from finite sources. Reducing the exploitation of fossil resources implies also less associated extraction emissions and mitigates environmental pollution caused by waste incineration or waste disposal on landfill sites. In addition, it contributes to the development of a circular economy and reduces overall wastes.

Waste hierarchy approach

7.2 Mechanical and Chemical Recycling

Recycling of plastic waste is a process intended to save resources (e.g. virgin raw materials, energy) and minimize harmful emission to the environment. Thus, the collection and sorting of plastic waste should be properly designed to deliver recyclable plastics waste fractions fitting reasonably well with the available recycling technologies and with the needs of the identified market outlets, preferably at minimum costs for the environment and society.

Types of recycling operations

Examples of a recyclable input materials are plastic waste or industrial waste. "Mixed Plastic Waste (MPW)" originates, for example, from waste management companies where it is separated from other waste materials and can be recycled by further mechanical or chemical processing. This provides additional options to promote the circular economy if a direct reuse of the plastic waste is not possible. Material covered under "MPW" has to be essentially free of paper, biomass and/ or used tires. The point of origin must provide information on the applicable Resin Identification Code (RIC) categories on the self-declaration if applicable. Group-certified Points of Origin that generate mixed plastic waste must sign the appropriate ISCC self-declaration, assuring that the material is a waste.

Mixed plastic waste

The Waste Framework Directive (DIR 2008/98/EC) sets out a general order of priorities for waste management. According to this document, recycling of plastic material is more advantageous than energy recovery. The recycling of plastics covers mechanical and chemical recycling technologies and processes.

Mechanical recycling of plastic covers processes in which the polymer structure is not significantly changed and the plastic is preserved as a material. Activities of a mechanical recycling plant can be:

- > Sorting (e.g., dry/wet sorting, float/sink separation, etc.)

¹³ Waste Framework Directive 2008/98/EC (31)

- > Washing
- > Shredding/grinding/crushing
- > Compressing
- > Melting/pelletizing

Chemical recycling refers to the conversion of polymers into their monomers or chemical building blocks or basic chemicals e.g. via depolymerization by means of thermochemical or other chemical processes.

In consideration of the total energy consumption, the minimization of harmful process emissions, the social and health protection of workers and the avoidance of disproportionate costs, mechanical recycling should be preferred in comparison to chemical recycling of plastic waste, i.e. the use of chemical recycling should be complementary to mechanical treatment methods. Sorting companies must have sufficient measures and processes in place to take these issues into consideration and to determine, how plastic waste will be recycled. Chemical Recycling should be applied where mechanical recycling is not technically feasible, economically viable, leads to low-quality products or has a higher negative environmental impact.

Because mechanically recycled quantities are preferred in the cascade utilization and due to the advantages described, chemically and mechanically recycled batches of materials and products quantities should be documented separately in the mass balance documentation.

7.3 Additional Requirements for Recycling according to EN 15343

Recycling under ISCC can also comply with EN 15343 (voluntary add-on requirements) if the following conditions are met:

Traceability follows the current ISCC approach for mixed plastic waste ¹⁴: for household waste (post-consumer) sorting centers and in the case of (post-) industrial waste, the industrial plant, i.e. plastic producer or converter where the waste originates are defined to be the points of origins. All certified operators must keep records on incoming and sorted products as shown in table 1. Batch identification and specification of the batch characteristics following the relevant standard (EN 15342, 15344, 15345, 15346, 15348) must be provided.

Traceability

Origin of the material	Material type/form
	Product type
	Type of waste e.g. pre-user, post user, demolition waste
	Where it came from (supplier identification)
	Date

¹⁴ as depicted in [Chapter 5.8.1](#) of this document

	History of waste (e.g. known contact with hazardous substances)
Handling of the material	Collection (transporter/type of transport)
	Sorting
	Batch size, identification and marking
	Pre treatment (e.g. washing, grinding)
	Storage (e.g. outside)
Test carried out before processing	EN 15347 Plastics recyclate characterisation of waste plastics
	Or as appropriate for the end use application
Process parameters	Details of the process used as appropriate
Tests carried out after processing	EN 15342
	EN 15344
	EN 15345
	EN 15346
	EN 15348
	Or any other standards as appropriate for the end user application
Intended (suitable) application	Details of appropriate or inappropriate applications
Other optional information as agreed between buyer and seller.	
This list is not exhaustive.	

Table 1: Overview of additional information for sustainability documentation

To identify the recycled content of a product (percentage by weight of recycled material in a product), the following formula is used:

$$\text{Percentage recycled content of the product} = \frac{\text{mass of recycled materials in the product}}{\text{total mass of the product}} \times 100$$

The collection and sorting scheme are properly designed to deliver recyclable plastic waste fractions fitting with available recycling technologies and the needs of identified market outlets, preferably at minimum costs. The input materials are controlled according to EN 15347. The recycling process produces material that meets the requirements for the intended applications. Process variables need to be recorded. For specific applications i.e. food applications, challenge tests demonstrate that the process is capable of delivering products with certain specified properties. Products delivered by the process require quality control testing.

Recycling process

All certified operators have records of the quality control carried out including incoming materials, processes, finished materials or products (a quality management system certified to EN ISO 9001 may suitable). Specification and standard deviation or range of values within and between batches of materials are agreed upon between supplier and purchaser (within the

Quality assurance

limitations of ISCC 203 requirements). The statement of recycled content or documentary of the previous history of the material is always available, additional analytical methods are possible.

8 Sustainability Requirements

The ISCC EU System Documents ISCC EU 202-1 – Agricultural Biomass: ISCC Principle 1; ISCC EU 202-2 – Agricultural Biomass: ISCC Principles 2-6; ISCC EU 202-3 – Forest Biomass: ISCC Principle 1; ISCC EU 202-4 – Forest Biomass: ISCC Principles 2-6 provide information on the sustainability requirements for farms/plantations/forest sourcing area, comprising of six sustainability principles:

Sustainability principles for farms/plantations

1. Protection of land with high biodiversity value or high carbon stock
2. Environmentally responsible production to protect soil, water and air
3. Safe working conditions
4. Compliance with human, labour and land rights
5. Compliance with laws and international treaties
6. Good management practices and continuous improvement

These system documents under compliance of the RED II apply equally for ISCC EU and ISCC PLUS.

Under ISCC, it is obligatory for the certified sites to comply with the laws, ordinances, directives and ratified treaties of the country in which they are located/operate, in terms of waste disposal and treatment, air, water and soil emissions/pollutions. The processing/handling of ISCC raw material should not lead to any type of additional emissions, pollutions and/or health hazards.

9 Traceability and Chain of Custody

The ISCC EU System Document 203 “Traceability and Chain of Custody” covers the requirements for the traceability and chain of custody applicable to all elements of the supply chain of sustainable materials that have to be covered by certification. Within ISCC two chain of custody options exist: physical segregation and mass balance. Additionally, under ISCC PLUS, controlled blending (see [Chapter 9.4](#)) can be used¹⁵.

Mass balance and physical segregation

This System Document applies equally for ISCC EU and ISCC PLUS, with some differing requirements under ISCC PLUS which are described in the following sub-chapters.

¹⁵ Please also see ISO 22095 for further information on Chain of Custody options. From ISCC perspective the approaches are in general aligned with the standard. ISCC Standard requirements prevail for ISCC audits.

9.1 Requirements for Sustainability Declarations

Under ISCC PLUS, specific information is required for sustainability declarations.

Information to be forwarded

General information

- > Name and address of the supplier
- > Name and address of the recipient
- > Related contract number
- > Date of dispatch of the sustainable material
- > Address of dispatch/shipping point of the sustainable material
- > Certificate number of the supplier
- > Date of the issuance of the Sustainability Declaration
- > The number of the group member (in case of group certification)
- > Unique number of the Sustainability Declaration
- > Statement "ISCC Compliant"

Product related information

Mandatory information:

- > Type of product (e.g. raw material, crude oil, etc.)
- > Quantity of sustainable part of the delivered product (respectively, quantity of sustainable part of produced batch) in metric tons or m3 at 15°C or MWh (for biogas/biomethane)¹⁶
- > Raw material category (see [Chapter 5.3](#))
- > For all circular and bio-circular materials:
 - Statement "The raw material meets the definition of waste or residues, i.e. was not intentionally produced and modified or contaminated or discarded, to meet the definition of waste or residues (applicable to waste and residues and products produced from those)"
- > Status post-consumer / pre-consumer material/ mixed (if applicable)
- > Type of recycling operations (if applicable)

¹⁶ If a product consists of a sustainable part (derived or attributed from certified input material) and a non-sustainable part (derived or attributed from non-certified input material), only the quantity of the sustainable part of the product has to be included on the SD. The total quantity of the delivery including the non-sustainable part of the product can be stated additionally (see "voluntary information").

- > For bio materials:
 - Statement “The raw material complies with the sustainability criteria according to the ISCC requirements as laid down in ISCC System Documents 202-01/-02 ‘Sustainability Requirements’”
- > Information on chain of custody option applied: “physical segregation”, “mass balance”, “controlled blending”
- > Type of mass balance option
- > If multi-site credit transfer was applied (if once applied in the supply chain this information must be forwarded by all downstream entities)

Voluntary information:

- > Total quantity of delivery
- > Raw material (e.g. corn, UCO, MPW)
- > Country of origin of the raw material
- > Statement on applied add-ons in case of the application of add-ons under ISCC PLUS, the following additional product-related information can be stated on the sustainability declaration:
 - 1) Name(s) of add-on(s), under which the equivalent amount of material has been certified or acquired
 - 2) For add-on 205-01 “GHG Emissions”:
 - Statement of GHG emissions of product in kg CO₂eq emissions per ton of product (either use of disaggregated default value or individually calculated GHG value)
 - Means of transport and transporting distance (only in case the disaggregated default value for transport is not applied)
 - Voluntary: Separation of different emission sources along the supply chain
 - 3) For add-on 202-03 “SAI Gold”:
 - “ISCC Compliant” material including the add-on “SAI Gold” can be claimed as “Equivalent to FSA 2.0 Gold Level”
 - 4) For add-on 205-02 “Consumables”:
 - Relevant consumables, which are transferred (e.g. water consumption) and individual value in the respective unit per product (e.g. in litre water/ton product)

Deliveries of ISCC certified material must always be accompanied by the sustainability declaration. If material is sold as sustainable to not certified clients it must be ensured that a transparent system is in place allowing the verification of certified sold material. Relevant documentation must be issued to allow third party verifiers to trace incoming and outgoing flows of material

*Provision of
sustainability
declarations*

even if buyers of sustainable material do not require to receive a sustainability declaration (e.g. retail). Documentation must at least refer to evidence on other types of delivery documents as well as book-keeping requirements for the mass balance(s).

To handle returns of sustainable material the following options exist:

Option 1: The intended recipient of the product does not accept the (defective) goods, i.e. they are returned to the supplier. In case a sustainability declaration has already been issued (30 days timeframe), the supplier could re-book the goods in its mass balance, as long as the refused acceptance is documented and verifiable for the auditor.

Material returns

Option 2: The goods are returned and the customer issues a sustainability declaration to the supplier. In this case, the supplier must have booked out the corresponding quantity in the mass balance. The returned goods can then be booked in again (based on the information provided on the new sustainability declaration).

9.2 Self-Declarations/ Self-Assessment for Farms or Plantations

Farms/plantations covered under the certificate of a First Gathering Point or Central Office conduct an annual self-assessment and provide the signed self-declarations to the First Gathering Point or Central Office. If for farms/plantations voluntary add-ons are additionally certified, the respective farms/plantations additionally have to complete the "ISCC PLUS self-declaration for add-ons" and provide it to the First Gathering Point or Central Office. The templates of the self-declarations are available on the ISCC website.

Annually signed self-declarations

During the audit, the First Gathering Point or Central Office has to provide a list of all farms/plantations with names and addresses of contact persons who signed the ISCC self-declaration within the past twelve months. If farmers apply one or more of the ISCC PLUS add-ons, this must be clearly indicated on the list.

9.3 Mass Balance Calculation

Under the mass balance system, the sustainability characteristics remain assigned to batches of material on a bookkeeping basis while the physical mixing of material with different sustainability characteristics and the mixing of sustainable and non-sustainable material is allowed. Any kind of mass balance operation and calculation shall only be related to sustainable material. Under ISCC, the maximum timeframe for a mass balance calculation is three months. There is an exception for producers of agricultural biomass (farms/plantations) or forest biomass and first gathering points sourcing only agricultural biomass or forest biomass. For those economic operators the mass balance period can be up to twelve months.

Mass balance

A mass balance must be site- and scope-specific, i.e. a separate mass balance shall be set up for every production site, even if they are under the same legal entity. “Sites” refer to locations/addresses of individual legal entities while “scopes” refer to market activities, e.g. collecting, trading and processing sustainable material (for further explanation please see ISCC System Document 102).

The same sustainability characteristics as provided on sustainability declarations have to be distinguished in the bookkeeping (see [Chapter 9.1](#)).

It is possible to downgrade sustainable material with a higher sustainability category (i.e. add-ons were covered by certification), for example to compensate a negative mass balance of sustainable material with a lower sustainability category (i.e. less or no add-ons applied) (see figure 3). However, this is only possible if all other sustainability characteristics are identical. If an ISCC certified system user receives sustainable material forwarded under the chain of custody option “mass balance” it is not possible to switch to the chain of custody “physical segregation” for the same material afterwards.

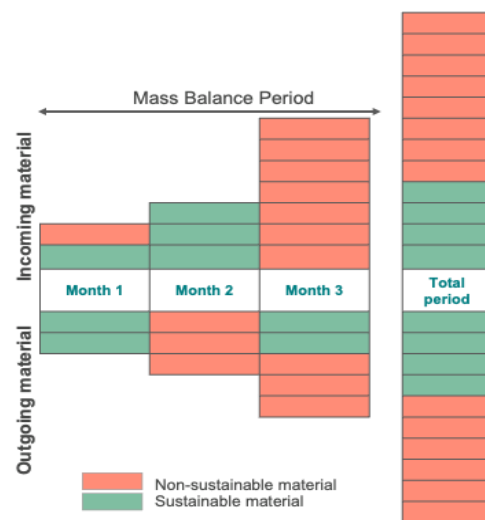


Figure 3: Negative balance of sustainable material can be balanced by sustainable material with a higher sustainability category (all other sustainability characteristics have to be identical)

9.3.1 Credit Transfer

If more sustainable material is received than dispatched within one mass balance period, the surplus of sustainable material in the bookkeeping is called “credit”. It is possible to transfer credits from one mass balance period to the next. This is possible regardless of the amount of material in stock (sustainable and unsustainable) at the end of the mass balance period. It should be ensured that a company is continuously certified, i.e. that no time gaps between certification periods occur.

Mass balances shall be kept strictly site-specific. Credits achieved within one site’s mass balance cannot be transferred to another site’s mass balance. An

Sustainability characteristics

Downgrading of material

Surplus sustainable material

Site-specific mass balances

exception applies for processing units and storage facilities¹⁷ certified under ISCC PLUS. They can transfer credits between different sites under the following conditions:

- > Supplier and recipient of credits must be part of the same company/corporate group/joint venture (see specification below)
- > Sites must be located within national borders or within neighbouring countries (sharing an inland border)
- > Sites must have the same scope of certification
- > Applicable only for the same kind of outgoing intermediate or final product (the output on the certificate annex has to be the same)
- > Mass balances must be kept site-specific
- > ISCC certification must be in place for all sites
- > Certificates can be issued by differing certification bodies if full documentation is available

Under ISCC PLUS it is also possible to transfer credits between sites that are part of the same or corporate group or joint venture. A corporate group is defined as a number of consolidated legal entities guided by a parent company. Precondition for the latter case is that the company transferring credits to another operational unit (being part of the JV) holds at least 50% in the other company. This has to be proven accordingly to the auditor. The other additional requirements for multi-site credit transfer under ISCC as stated above remain unchanged and have to be equally fulfilled.

Multi-site-
credit transfer
for joint
ventures

Operations that are both certified under ISCC EU and ISCC PLUS can transfer credits from ISCC EU to ISCC PLUS mass balances, if the material is “ISCC Compliant” and the other sustainable characteristics are identical. However, it is not possible to transfer credits from ISCC PLUS to ISCC EU mass balances.

9.3.2 Mass Balancing Approach under ISCC PLUS

The mass balancing approach determines the sustainable share. It ensures that volumes of outgoing sustainable material do not exceed volumes of incoming sustainable material. For attributing the correct amount of sustainable output, the sustainable share must be calculated. The sustainable share is the amount of sustainable input material multiplied with the respective conversion factor (CF) of the processing unit. The CF is the amount of all outputs divided by the amount of all inputs. For the determination of the conversion factor, all process outputs (products) as well as reactants (e.g. water) can be taken into account. Process losses (e.g. gases to flare) are deducted from the conversion factor.

Calculation of
conversion
factors

The determination of the CF must be conducted based on the operational data of the processing unit. It is not allowed to determine the CF based on

¹⁷ Not applicable for raw materials and audit scopes farm/plantation, FGP, PoO, CP, FPR

theoretical data. Each plant (e.g. a cracker, a polymerization plant), which is combined under one certificate at one site, has its own conversion factor. Depending on which process steps are used to manufacture a product or which plants are passed through, the corresponding conversion factors must be considered. Conversion factors do not need to be calculated for each single product. “Product groups” can be defined to determine “simplified conversion factors” for all products from this group. The conversion factor for the whole group of products can be determined based on the data for the most relevant product from this group or via determining a “weighted” average. Precondition for the use of simplified conversion factors is that a transparent description of the defined product groups exists and that there is a clear link to respective data in the documentation system which must be provided during the audit to the third-party verifier.

There must be an equivalence between the “ISCC Compliant” input and the respectively claimed output (on a mass balance basis). If the final product does not achieve 100% “ISCC Compliant” equivalence, the percentage must be stated (e.g. on- and/or off-product). Equivalence means that the respective amount of input to output has been sourced.

ISCC PLUS offers different options to conduct the mass balancing for a certified processing unit and to determine the sustainable output (see Figure 4).

Options for mass balancing under ISCC PLUS

Option	Approach	Principle
1 Attribution determined by mass	Attribution Approach	Free attribution to one or several outputs
2 Attribution determined by energy		
3 Trace-the-Atom	Molecular Approach	Determination based on chemical reaction
4 ¹² C/ ¹⁴ C Analysis	Measurement	Measurement of sustainable share

Figure 4: Overview on mass balancing options under ISCC PLUS

The sustainable output can be determined using an “attribution approach” (Option 1 and 2, see Figure 4). In this case, the site of the processing unit defines the system boundaries. In case two or more processing units that can be clearly separated from each other are located at the same site (one ISCC PLUS certificate), the system boundaries for the attribution from input to output can be separately defined for each certified processing unit. The specific processes (e.g. chemical reactions) within the system boundaries of the respective processing unit are not taken into account for the determination of the sustainable share (for limitations of mass balancing see below and Figure 6). Thus, the focus of the analysis is exclusively on the relevant input, output and losses of the process. In order to calculate the sustainable share, the amount of sustainable input, output and the losses can be described based on their mass (option 1) or based on their energetic value (option 2).

Mass balancing based on input, output and losses

For the mass balancing options 1 (attribution determined by mass) and 2 (attribution determined by energy) two supplementing options can be applied: “certified free attribution” and “certified energy excluded attribution”. The option “certified free attribution” allows the free attribution for the determination of the sustainable share of input material to the output material. This means that the sustainable share can be attributed to one or several output materials independent of the usage of the outputs. However, as described above, process losses¹⁸ need to be considered for the calculation of the conversion factor.

In case of the “certified energy excluded attribution” option, the part of energetically used outputs which are derived from the sustainable input material cannot be attributed to other output materials.^{19, 20} Energetically used outputs are outputs that can be consumed internally (to provide energy for the process, “auto-consumption”) and as well as sold (to be used at downstream operators for energetic purposes). To calculate the part of the energetically used outputs, which are derived from sustainable input material, an attribution of the sustainable input material to energetically used outputs according to real yields or input shares (on a mass or energetic basis) is mandatory. This sustainable share of energetically used outputs cannot be re-attributed to material outputs²¹. The remaining sustainable share can be attributed freely among all material outputs taking into accounts the limitation rules for attribution. Figure 5 depicts a comparison of the two supplementing attribution approaches with exemplary numbers.

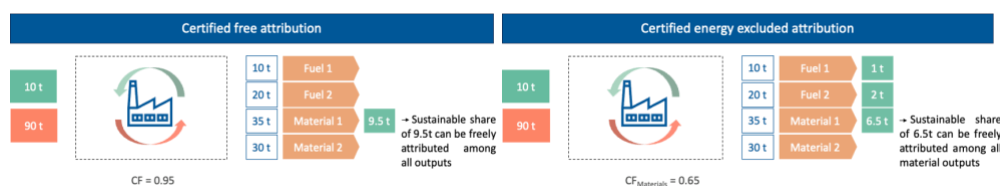


Figure 5: Exemplary numbers for the two different supplementing attributions options for mass balancing options 1 and 2. In the example the attribution is determined by mass (mass balancing option 1).

¹⁸ Process losses include parts of the material feedstocks (inputs) of a process, which are used energetically and therefore not converted to products but to waste streams like CO₂ (e.g. the part of ethylene in ethylene oxide production which is oxidized to CO₂ and hence used for energetical purposes in the process). This does not include the internal energetical usage of fuel products (outputs) of a process, e.g. a steam cracker (no “auto-consumption exempt” under certified free attribution).

¹⁹ This option is also referred to “fuel-exempt” and is in line with the definition of recycling in the EU waste framework directive, which “does not include energy recovery and the reprocessing into materials that are to be used as fuel” (directive 2008/98/EC, Art 3 (17)).

²⁰ Details of the implementation of an energy excluded approach under ISCC PLUS are under development, e.g. the consideration of products which can be used either for energetical purposes or as a material feedstock. Different implementation options will be tested in pilots at ISCC system users and additional guidance will be published separately to this system document.

²¹ In case of simultaneous ISCC EU and PLUS certification: sustainable parts of sold fuels can be used under ISCC EU.

Next to the above outlined attribution approaches, also the **Trace-the-Atom option (option 3, see figure 4)** can be used to determine the conversion factor and sustainable share. The equation of the chemical reaction used for the production of the sustainable product is followed. Consequently, the conversion factor is based on the share of (carbon) atoms derived from the sustainable input in relation to all (carbon) atoms that are part of the output molecule. Operational data of the processing unit must be used to take process losses into account and determine the sustainable output.

Mass balancing based on chemical reactions

By applying one of the three options described above, claims cannot include reference to the physical content of the output.

Using isotope measurements of the output, the actual present share of the bio-based feedstocks can be determined in the final product. A $^{12}\text{C}/^{14}\text{C}$ **isotope measurement (option 4, see figure 4)** can be used to determine the bio-based share in a product. In contrast to the options of calculating the process yield based on an analysis of in- and output materials, this option measures the “physical” bio-content in a product. Here, in contrast to options 1-3, claims on the bio-based content can be made because it can be proven that the output physically contains a certain amount of sustainable input. Further information on accepted methods, measurement and sampling regimes can be found in ISCC Guidance Document 203-01 “Co-Processing”.

Mass balancing based on bio-content measurements

For all of the above-mentioned options eligible under ISCC PLUS, the attribution/ determination is limited to:

Limitations for mass balancing

- > process outputs that can potentially contain parts (molecules/atoms) of the sustainable input after its processing/chemical reaction (→ no attribution to output, which cannot (chemically/ technically) include the sustainable input).
- > physical output (sustainable and non-sustainable) produced in the respective mass balance period (→ no attribution to a quantity of output, which is not produced at the site within a mass balance period).

<p>Site specific</p> <p>Mass balancing must be site specific.</p>	<p>Process feasibility</p> <p>It must be chemically/technically possible, that the input molecular/atoms are included in the attributed output.</p>
<p>Operational data</p> <p>The conversion factor is determined based on operational data.</p>	<p>Physical output</p> <p>Attributed sustainable output cannot be higher than the physical output in a mass balance period.</p>
<p>Transparency</p> <p>Information on the used option for MB (attribution) and on multi-site Credit Transfer must be provided via sustainability declaration.</p>	

Figure 6: Basic conditions for the ISCC PLUS mass balancing approach

Example calculations

a) Attribution determined by mass

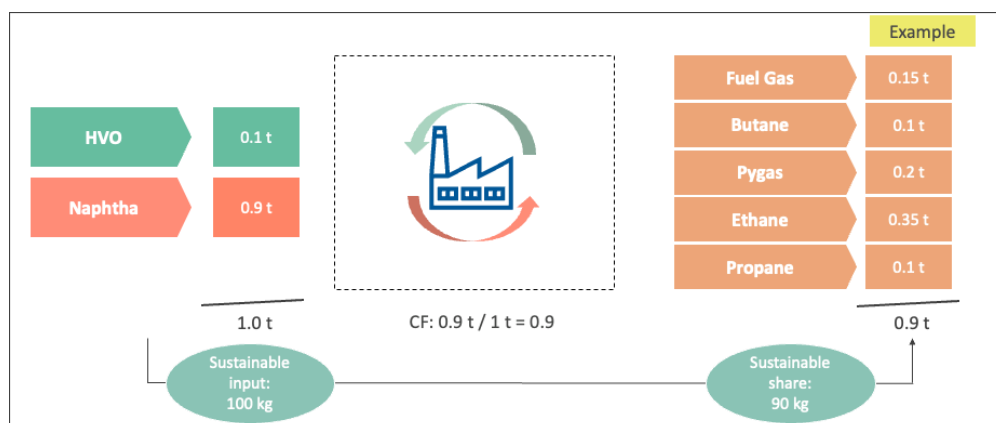


Figure 7: Example calculation of attribution determined by mass

b) Attribution determined by energy

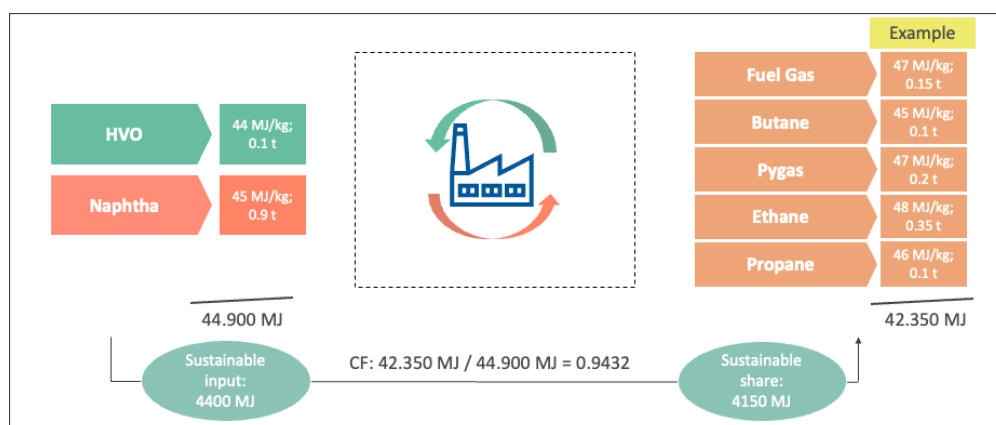


Figure 8: Example calculation of attribution determined by energy

9.3.3 Consideration of Additives, Masterbatches and Non-sustainable Organic Content for Mass Balancing

The sum of all additives, masterbatches and other non-sustainable organic compounds must be less than 3% of the total mass or energetic value in order to be neglected from the mass balance calculation. Components that exceed 3% of the total quantity of the product must be entirely taken into account in the mass balance calculation.

Limits for conversion factors

Taking into account the tolerance level of neglectation it is not allowed to use a conversion factor >1.

9.3.4 Use of Consumption Factors

In case of a multistep reaction network at one site (e.g. chemical park) both, bills of materials and/ or process orders may not allow to use the above stated approach for the determination of the conversion factor of the site/ processing unit. In such a case, each process step can be analysed individually, leading

to specific consumption factors for each individual input component of the process step. Consumption factors reflect, how much input material (also taking material losses due to chemical reactions or process inefficiencies into account) must be used to produce a specific amount of the desired material/component. For some processes and sites, consumption factors can be more accurate in terms of raw material consumption than an overall conversion factor for the whole processing unit. The determination of consumption factors must always be site specific and based on bills of material and/ or process orders being updated and adjusted based on actual consumption data on a regular basis (e.g. annually).

9.3.5 Requirements for Mass Balancing of Renewable Electricity in Electrolysis Processes

For processes in which electricity enables chemical reactions and is used to produce one or several products, mass balancing is limited to a “proportional approach” or “stoichiometric approach”. This means that the sustainable share must be attributed to all process products in the same ratio in which these products are generated per unit of consumed electricity. A “re-attribution” or “shift” of attributed sustainable share from one product of the process to another is not allowed.

For example, in case of a chloralkaline processing unit in which renewable electricity, sodium chloride and water are used to produce chlorine as the main product, the process yields equivalent amounts of chlorine, sodium hydroxide and hydrogen (for every mole of chlorine produced, one mole of hydrogen and two moles of sodium hydroxide are also produced). In this case it is not allowed to e.g. transfer sustainable credits from chlorine to hydrogen or vice versa.

9.3.6 Consideration of Hetero Atoms

If a product is produced from ISCC compliant and non-compliant input materials and consists of carbon atoms and hetero atoms such as oxygen (O), hydrogen (H) or nitrogen (N), the hetero atoms are considered to be part of the sustainable share of the product, if they are derived from the ISCC compliant input material (molecule). This holds for example for the oxygen atom in bio ethanol, when the oxygen atom is also originating from the biomass.

If oxygen or nitrogen from ambient air reacts with an ISCC compliant input material, the oxygen and nitrogen atoms derived from ambient air are also considered to be part of the sustainable share of the product (e.g. nitrogen in ammonia production reacting with certified hydrogen, see certification example 5 in [Annex I – 4. Certification Examples](#)) and it is allowed to make a claim on the corresponding share²². This is allowed for using directly ambient

²² This explicitly does not hold for the reaction of oxygen or nitrogen with non-compliant (fossil) input. In case of co-processing ISCC compliant with non-compliant input (same material) only oxygen or nitrogen reacting with the ISCC compliant share of the input material can be considered to be part of the sustainable share of the product.

air as a reactant and for using purified oxygen or purified nitrogen as reactants if the oxygen and the nitrogen are derived from ambient air.

It is not allowed to attribute the sustainable share of oxygen and nitrogen during downstream production processes of the supply chain to hydrogen or carbon atoms. Therefore, if oxygen or nitrogen atoms from ISCC compliant input materials are no longer present in the certified output material (molecule)²³, the sustainable share needs to be reduced by the respective mass of oxygen and nitrogen atoms from the ISCC compliant input material. The certified free attribution is hence restricted in those cases to the mass of the hydrocarbon content from the ISCC compliant input material²⁴.

Since the origin of hetero atoms in an $^{12}\text{C}/^{14}\text{C}$ analysis cannot be determined, the following norm applies for the determination of the bio-based content after a $^{12}\text{C}/^{14}\text{C}$ analysis: If a product is processed by chemical synthesis and reactant are derived from both biomass and non-biomass, oxygen (O) and/ or hydrogen (H) and/ or nitrogen (N) element(s) is/ are bound to a carbon structure derived from biomass, its/ their fraction is/ are considered to be part(s) of the bio-based content²⁵.

9.4 Controlled Blending

Besides physical segregation and mass balance, controlled blending is the third Chain of Custody option available under ISCC PLUS. Controlled blending refers to a planned blending regime resulting in constant and verifiable content of bio, circular and renewable feedstock in the final product. Blending is obtained by mixing the feedstocks/ products without a chemical or biological reaction.

Only the sustainability characteristics “bio-based content” (raw material categories bio and bio-circular) can be verified via “controlled blending”. As controlled blending can be used with physical ISCC compliant bio-based feedstocks, monitoring of this physical characteristic can be conducted via C14-isotope analysis.

For controlled blending, the quantity of the physical inputs and outputs at the site must be monitored and documented. Incoming percentage of controlled blending input shall be known beforehand in order to determine the percentage of the output before delivery.

Clear documentation of the sustainable percentage of each output must be ensured. The percentage of controlled blended output shall be achieved by:

- Physical segregation of blended material or product in terms of production, transport and storage
- Clear identification of the blended material or product during the process

²³ E.g., due to oxygen or nitrogen atoms leaving the production process as O_2 or N_2 or if the oxygen or nitrogen atoms are present in output materials with no attributed sustainability characteristics.

²⁴ Hetero atoms from impurities in input materials with weight percentages <1% do not need to be taken into account for this requirement.

²⁵ For further information please see DIN EN 16785-1

Controlled blending will be used by companies to make a stronger claim on the physical characteristics of the product. This must be monitored and documented.

10 Audit Requirements and Risk Management

The ISCC EU System Document 204 “Risk Management” covers the requirements of how ISCC audits are to be conducted at different elements of the supply chain, the risk management process under ISCC applicable to all activities of ISCC and the implications of risks for ISCC audits.

Conduction of audits

This System Document applies equally for ISCC EU and ISCC PLUS.

11 GHG Emissions

The ISCC EU System Document 205 “Greenhouse Gas Emissions” explains the options of stating greenhouse gas (GHG) emissions along the supply chain and provides the methodology, rules and guidelines for calculating and verifying GHG emissions and emission reduction.

Options on GHG emissions

Within ISCC PLUS, the verification of GHG emissions is voluntary and can be added by applying the add-on 205-01 “GHG Emissions”. If the add-on is applied, this System Document applies equally for ISCC EU and ISCC PLUS, with some differing requirements under ISCC PLUS which are described in the following sub-chapters. In case system users have conducted a LCA based on an ISO 14040/44 or ISO 14067 which differs from the ISCC methodology (described in the ISCC EU System Document 205 “GHG Emissions” and in this document), the calculated value needs to be communicated separately and cannot be used to replace a GHG calculation based on the ISCC methodology.²⁶

11.1 Deviations with respect to Emission Factors

Within ISCC PLUS, emission factors of input materials can be individually calculated or come from official sources like the Renewable Energy Directive (RED) or Annex I of the ISCC EU System Document 205 “GHG Emissions”. Furthermore, values based on Ecoinvent or other relevant databases or peer-reviewed literature can be used, if applicable. Recognized methodologies for individual calculations of input material emission factors are next to the RED II or ISCC also ISO 14040/44 or ISO 14067. The methodology used for individual calculations by the supplier must always be verified according to the ISO standard or alternatively the supplier must be ISCC certified so that relevant requirements have been verified during an ISCC audit.

Emission factors

²⁶ ISCC is going forward with pilot projects to include a methodology for PCF calculations. These pilot projects will be conducted to verify the methodology for PCF calculations for sustainable feedstocks.

11.2 Calculation of Regional GHG Values for Cultivation (e_{ec})

Additionally, for regional averages for cultivation that can be calculated for countries outside the European Community, where no typical emission values for cultivation (NUTS2 values) exist, it is possible under ISCC PLUS for third parties (e.g. companies, plantation owners, associations) to calculate typical GHG emissions for cultivation. The methodology shall follow ISCC's requirements and ISCC should be informed whenever such values are calculated. However, a submission of the typical GHG emissions values to the European Commission is not required.

Typical GHG emissions for cultivation

11.3 Calculation of Individual GHG Values for Cultivation (e_{ec})

In case of individual GHG emission calculations for a group of farms or plantations, the averaging of input values and GHG emission values is accepted under ISCC PLUS.

Averaging of GHG values

11.4 Aggregation of Different GHG Values

Under ISCC PLUS, the aggregation of different incoming GHG values is possible for all input materials of the same kind.

Aggregation of GHG values

11.5 Allocation of GHG Emissions

Under ISCC PLUS, the allocation of emissions to main and co-products can be based on the energy content of both products (see 4.3.8.1 in ISCC EU System Document 205 "GHG Emissions"), but other types of allocation (e.g. based on mass) are also possible. The most suitable allocation method should always be used, e.g. if the main product is used energetically an energetic allocation should be applied.

Allocation of GHG emissions

11.6 Life Cycle Coverage

Under ISCC PLUS, the GHG emission calculation can either cover the whole life cycle of the product (from cradle-to-grave), or only the emissions up to the factory gate (from cradle-to-gate). In any case the GHG add-on must be implemented in the entire supply chain up to the entity claiming a value on outgoing product. It must always be clearly highlighted on the sustainability declaration of the product if the cradle-to-gate approach is used. If required, further information on the additional emission to be included for the product must be provided to the recipient of the material.

Life cycle coverage

12 Group Certification

The ISCC EU System Document 203 "Traceability and Chain of Custody" specifies requirements for the certification of groups. So far, the group certification approach is applicable for farms/plantations, points or origin of a

Certification of groups

waste/residue material and warehouses. For ISCC PLUS this concept is expanded to the two following approaches listed in this chapter.

12.1 Certification Approach for Country Dealers / Limited Risk Distributors (LRD)

LRDs are own legal entities and are active in certain countries (sales regions) for corporate groups having a business principal that acts as central trader and therefore is in charge of all the purchasing and selling operations (a.o.). Business principals control a centralized Enterprise Resource System (ERP) but do not receive physical ownership of sustainable material. The sustainable material is sold to the paper traders in all relevant sales markets who then sell the sustainable product to a third party in the country. For such setups, LRD certification is possible if all required documentation is available at the business principal. A list of all paper traders belonging to the group must be verified in the audit and provided to ISCC together with other relevant audit documentation.

Definition LRD

Specifications for LRDs:

- > must be part of the corporate group (certificate holder has at least 50% equity share). Branches of the same legal entity at a different address can also be considered as LRDs
- > publicly available information that links traders to the corporate group (e.g. annual financial reports)
- > must be part of the central material flow documentation system of the corporate group in a way that all relevant data can be approached from the certificate holder headquarter
- > only act as a paper trader, meaning they buy and sell the certified material in the central system while the physical flow of the material is straight from the production unit to the customer. The processing unit issues the sustainability declaration to the recipient of the physical material respectively (the LRD does not issue any delivery documents and/or sustainability declarations)
- > only sells products produced by a processing unit that is part of the corporate group and invoices these upon selling
- > must not be active for other companies, i.e. trader is contracted as sole provider of distribution for the manufacturing company

Preconditions

The LRD does not need to be audited separately in case all relevant data can be accessed from the business principal's system where the audit takes places. Audit requirements and required documentation remain according to all other relevant ISCC Documents (including ISCC EU 201, 203, 204) so that during the audit of the business principal it is a.o. verified that deliveries of sustainable material from the processing units are balanced with the sum of

Audit requirements

sales of sustainable material by all entities involved. The business principal needs to keep a list of all LRDs and document all purchases and sales of ISCC sustainable material.

There must be a link between the LRD invoicing and the dispatch of product at the processing unit. It needs to be ensured that the customers of the sustainable material are aware under which ISCC certificate the LRD is covered in order to be able to check the certificate's validity on the ISCC homepage. For this, the verified list can be provided to clients of LRDs. In case additional LRDs are added between two ISCC PLUS audits, this needs to be reported to the CB and the updated list needs to be provided to ISCC by the CB.

12.2 Group Certification Approach for Final Product Refinement Activities

The group certification approach for Final Product Refinement (FPR) activities (see [Chapter 5.8.2](#)) is applicable for certificate holders that outsource FPR activities to various sites in different locations. These sites can either belong to the same legal entity as the certificate holder or to an external company that provides a contracted service for the certificate holder. As a precondition for the group certification, the legal ownership of the certified material must always remain with the certificate holder (FPR group head). The certificate holder shall always be certified under the scope FPR. In case a processing unit is outsourcing FPR activities, the FPR scope must be added to the certificate. The certificate holder (= owner of material) shall be responsible for the fulfilment of all relevant ISCC requirements, including the conduction of mass balances, issuing sustainability declarations and the reporting of sustainable volumes to ISCC. Audit requirements and required documentation remain according to all other relevant ISCC documents (e.g. ISCC EU 201, 203, 204). All the outsourced activities shall always be recorded (e.g. by a centralized ERP system of the certificate holder) and kept in a list that must be provided to the ISCC head office. The certificate issued by the CB must indicate the group members on the annex of the certificate. In a set-up where the same material or product is received in several sites but with differing shares of certified material, it is possible to make an average claim on the final product (e.g., in B2C communication, marketing, on-product claim) if verifiable by the CB (e.g. via a centralized ERP system).

Specifications for group certification of FPR activities:

- > The certificate holder outsourcing FPR activities must be certified under the scope Final Product Refinement
- > Processing activities cannot be covered by the group certification approach
- > No further outsourcing of outsourced activities is possible

Preconditions

- > Only sites that physically receive certified material can be covered by the group certification approach
- > During the period of validity of a certificate, additional outsourced activities and sites related to the certified material can be added. Precondition is that the list of outsourced activities and sites must be kept up-to-date and the certification body has to be informed about any changes to the list
- > For each sample audit of a group member, a separate audit procedure for the FPR scope must be applied
- > For each outsourced site, a mass balance and all other relevant documentation must be kept, controlled and recorded by the certificate holder
- > For every outsourced site an outsourcing agreement must be in place
- > The outsourced site must provide a “self-declaration for outsourcing” to the certificate holder (see requirements below)
- > All group members must be listed in the annex of the certificate holder

A self-declaration signed by the outsourced site must be provided to the group head. By signing the self-declaration, the entity declares compliance with all legal obligations as well as the relevant ISCC requirements and confirms to give external auditors access to the premises to verify conformity with the ISCC requirements. No party other than the outsourced site is allowed to sign the self-declaration.

Self-declaration

Requirements of the self-declaration for outsourcing:

- > Conformity with all applicable ISCC requirements
- > Must not make unauthorized use of the ISCC logos and claims (e.g. on other products or for its own communication)
- > Declaration that no further outsourcing will be done
- > Accept the right of the certificate holder’s CB to audit the site
- > Keep records of inputs, outputs, activities and delivery documentation associated with all material covered by the outsourcing agreement with the certificate holder

ANNEX I – ISCC EU and ISCC PLUS: Overview Differences

1. General Differences between ISCC EU and ISCC PLUS

Issue	ISCC EU	ISCC PLUS
Recognition and Accreditation	<p>ISCC EU is recognized by the European Commission in the framework of the RED II</p> <p>Accreditation by ANSI</p> <p>Surveillance by German BLE</p>	<p>ISCC PLUS at this point in time is a voluntary certification standard for non-regulated markets</p> <p>ISCC is planning to apply for recognition in the space of recycling content, rates, quotas, plastic tax once possible and relevant</p> <p>Accreditation by ANSI</p>
Scope of application	<p>Biofuel markets in the EU</p>	<p>Biofuel markets outside EU and bioenergy, food, feed, chemicals/technical applications</p>
Acceptance of other certification schemes	<p>ISCC EU accepts all voluntary schemes that are recognised by the European Commission in the framework of the RED II and which are in line with ISCC requirements.</p> <p>Acceptance of voluntary schemes is limited to the scope which is recognised by the European Commission.</p>	<p>Only ISCC (ISCC certification of the whole upstream supply chain required). ISCC will consider benchmarks for potential mutual recognition only with other multi-stakeholder voluntary schemes</p>
Materials currently covered	<p>Coverage of all types of agricultural and forest biomass, biogenic waste and residues (including agricultural, aquaculture, fisheries and forestry residues), ligno-cellulosic and non-food cellulosic materials, including feedstocks listed in Part A of Annex IX of the RED II</p> <p>Coverage of raw materials of non-biological origin, such as liquid and solid waste streams,</p>	<p>All types of agricultural and forestry raw materials, waste and residues, non-bio renewables and recycled carbon materials and fuels</p>

	waste processing and exhaust gas and energy derived from renewable sources other than biomass	
Application of GHG emission requirements	Mandatory for all elements of the supply chain	Voluntary coverage (add-on “GHG Emissions”)
Reporting Requirements to the EC	Yes. Annually reporting of sustainable material for producer of final biofuel and certified elements at the beginning of the supply chain (e.g. FGPs, CPs)	Not applicable at this point in time

2. Differences between ISCC EU and ISCC PLUS with regard to Traceability and Chain of Custody

Issue	ISCC EU	ISCC PLUS
Transfer of positive credits to the next mass balance period	Only, if at least the equivalent amount of physical material (sustainable and unsustainable) is in stock	Positive credit transfer possible with no time limit even if no physical material is in stock
Transfer of credit between different sites	Transfer of credits between different sites not allowed	Transfer of credits to other sites of the same company, corporate group or joint venture possible for processing units and storage locations under certain conditions ²⁸
Mutual acceptance of ISCC EU and ISCC PLUS	Deliveries solely from ISCC PLUS certified companies not accepted	Under ISCC PLUS entities handling “ISCC compliant” material can be accepted under ISCC PLUS
Applicable claims	“ISCC Compliant” and “EU RED compliant”	“ISCC Compliant”. If applicable, claims for voluntary Add-ons used (ISCC claims and logos document)
GHG information on sustainability declaration	Mandatory (special requirements for final biofuels see table below)	Only if the voluntary Add-on “GHG emissions” is applied

²⁸ Conditions in [Chapter 9.3.1](#)

3. Differences between ISCC EU and ISCC PLUS with regard to GHG Emission Calculation

Issue	ISCC EU	ISCC PLUS
Application of GHG requirements	Mandatory for all elements of the supply chain	Voluntary application of add-on “GHG Emissions”
Specific GHG requirements for final products	Yes. Producer of final fuel and downstream supplier have to report GHG emissions of fuel, relevant fossil fuel comparator, GHG emission savings (compared to relevant fossil fuel) and statement on start of operations ²⁹	No. Voluntary if requested by final customer/market. Application of add-on “GHG Emissions” along the supply chain is precondition

4. General Certification Examples

The below given examples show possible certifications under ISCC PLUS on an exemplary basis. The list is not complete. Adaptations of the individual examples shown here may be necessary due to different requirements of different setups. The list aims to support the establishment of a uniform terminology and handling and to provide orientation for certification.

Example number	Inputs	Outputs	Description
1	Renewable-energy-derived hydrogen, CO ₂	Renewable-energy-derived methanol	To produce ISCC PLUS certified methanol from fossil or atmospheric CO ₂ , ISCC compliant hydrogen need to be used. The same is true for ISCC compliant methane from fossil or atmospheric CO ₂ (SNG). The raw material category of the hydrogen (bio, (bio-)circular, renewable-energy-derived) can solely be used as the raw material category for methanol.
2	Bio ammonia, CO ₂	Bio urea	ISCC PLUS certified urea can be produced from fossil or atmospheric CO ₂ and ISCC compliant ammonia (bio, (bio-)circular, renewable-energy-derived). The other relevant process input besides CO ₂ , which needs to be ISCC compliant, is ammonia in this example. Hence, in this example, the carbon and oxygen atom of urea derived from

²⁹ According to the RED II an installation shall be considered to be in operation once the physical production of fuel, heat or cooling, or electricity has started (i.e. once the production of fuels including biofuels, biogas or bioliquids, or production of heat, cooling or electricity from biomass fuels has started). shall be considered to be in operation if the physical production of biofuels has taken place.

			CO ₂ are part of the sustainable share. The raw material category of the ammonia can be solely used as the raw material category for urea.
3	Renewable electricity	Renewable-energy-derived chlorine, Renewable-energy-derived hydrogen, Renewable-energy-derived sodium hydroxide	In the Chloralkali electrolysis electrical current is used to produce chlorine at the anode and hydrogen at the cathode. Hence electricity is an integral part of the reaction of the production process and can be considered as the main feedstock. The material feedstocks water and sodium chloride itself are not certified. All products of this production process (chlorine, hydrogen, sodium hydroxide) can be claimed "renewable-energy-derived".
4	Renewable-energy-derived sodium hydroxide, bio acrylic acid	Renewable-energy-derived bio sodium polyacrylate	A combination of raw material categories for the super absorbing polymer (SAP) sodium polyacrylate is possible, since this reflects the chemical reaction and both inputs with different raw material categories are present in the certified output. The masses of the parts of SAP derived from each raw material category need to be stated separately in the sustainability declaration.
5	Renewable-energy-derived hydrogen, N ₂ from air	Renewable-energy-derived ammonia	The nitrogen atoms, which were derived from ambient air and which reacted with ISCC compliant hydrogen are part of the sustainable share of ammonia. In case of co-processing with hydrogen from fossil sources only the nitrogen reacting with the ISCC compliant share of hydrogen is considered for the sustainable share of ammonia.

ANNEX II – Social Criteria for Potential Ocean-bound Plastic

1. Social Development

1.1. A Self-Declaration on Good Social Practice regarding Human Rights Is Available

A self-declaration on good social practice regarding human rights must have been communicated to the workers. The company management and the workers' representative must have signed and displayed a self-declaration assuring good social practice and the human rights of all workers. The self-declaration must be in a language appropriate to the workers and surrounding communities. This declaration contains the following:

- > a commitment to the ILO core labour standards
- > respect for a living wage
- > respect for the social environment
- > commitment to fair contract arrangements

*Commitment to
good social
practices*

Degree of obligation: immediate requirement

1.2. Other Forms of Social Benefits Are Offered by the Employer to Workers and their Families and/or Community

Incentives including incentives for good working performance, bonus payments, support for professional development, family friendliness, medical care/health provisions and the improvement of social surroundings are offered. Workers should be encouraged to take out health insurance by creating awareness and providing information about available insurance policies. Health insurance can include long-term compensation in case of disability and payment of medical costs.

*Incentives
for workers*

Degree of obligation: best-practice requirement

2. Employment conditions

2.1. No Forced Labour

There must be no use of forced, bonded or involuntary labour.³⁰ Labour that originates from human trafficking is strictly prohibited. Workers are guaranteed the freedom of movement and shall not be forced to hand over their identity cards to the employer or any other third party. If workers voluntarily surrender their identity cards to the employer for safekeeping, they shall have unrestricted access to their identity cards. Access must be free of charge and

*Forced
labour and
retaining
salary,
property*

³⁰ In line with ILO Conventions 29 and 105

it can be documented. An agreement on the safekeeping of identity cards shall be available in written form, in a language understood by the worker. Retaining workers' salary, excessive deduction of fees from wages for disciplinary purposes, personal protective equipment, or deposits for accommodation or tools is prohibited.

Degree of obligation: immediate requirement

2.2. No Child Labour

Child labour is prohibited, as well as all forms of slavery or practices similar to slavery. The minimum age must comply with all local and national legislation as well as with ILO Conventions 138 and 182. No minors are to be employed. Documents must include records of workers' dates of birth and documented evidence that the employer is aware of relevant legislation.

Children and young, pregnant or disabled workers

Degree of obligation: immediate requirement

2.3. No Discrimination

There shall be no indication of discrimination (distinction, exclusion or preference) practiced that denies or impairs equality of opportunity, conditions or treatment based on individual characteristics and group membership or association.

Equality of opportunities

Degree of obligation: immediate requirement

2.4. Respect and Ensure Gender Equity

Special attention shall be paid to ensure that women and minority groups can participate meaningfully in meetings and negotiations in order to articulate/communicate their concerns/ideas. In all stakeholder consultation processes, including the FPIC, women and minority groups shall be appropriately included and their voices equally heard and respected.

Equal participation in meetings and consultations

Degree of obligation: immediate requirement

2.5. Regular Employment Is Available wherever Possible

Employment relationships shall be established through national law and practice. The employment of contract or temporary workers for permanent or ongoing tasks, e.g. to eliminate or reduce pay and benefits, shall not take place. This can be supported by a regular assessment of ways to promote the use of permanent and local labour.

Employment relationships

Degree of obligation: best-practice requirement

2.6. Workers are Treated with Dignity and Respect

The company shall not engage in or tolerate the use of corporal punishment, mental or physical coercion, verbal or physical abuse or sexual harassment or any kind of intimidation of workers. No harsh or inhumane treatment is permitted. A policy to prevent sexual and all other forms of harassment and violence shall be implemented and communicated to all levels of the workforce, contract workers and service providers.

*No punishment
or abuse*

Degree of obligation: immediate requirement

2.7. All Workers Are Provided with Fair Legal Contracts

All workers are provided with fair legal contracts in written form and in the languages understood by workers and explained carefully to them in case of low literacy. Copies of working contracts must be able to be shown to the auditor for every worker indicated in the records. Both the worker as well as the employer must have signed them. Personnel records for each employee must be kept for at least 24 months. Where a registration system exists, copies of working contracts must be registered with the labour authority of the country of production. In those countries where there are no requirements for formal labour agreements between workers and employers, alternative documented evidence of a labour relationship must be present.

*Signed
working
contracts*

Degree of obligation: immediate requirement

2.8. A Living Wage Is Paid Which Meets at least Legal or Industry Minimum Standards

The company's pay slips demonstrate that living wages meet at least legal or industry minimum standards and are sufficient to meet the basic needs of workers and provide some discretionary income. Gross wages are paid to workers at least monthly.

Payment

Degree of obligation: immediate requirement

2.9. There Is a Person Responsible for Workers' Health, Safety and Good Social Practice

An organigram is in place including the responsible person for workers' health, safety and good social practice.

*Competence of
represent*

Degree of obligation: immediate requirement

2.10. Records of All Workers and Employees Are Available

Records should clearly demonstrate an accurate overview of all workers and employees (including seasonal workers and subcontracted workers). The records must indicate full names, a job description, date of birth, date of entry,

*Record-keeping of
employees*

wage and the period of employment. Records must be accessible for the last 24 months.

Degree of obligation: immediate requirement

2.11. Working Times and Overtime Are Documented

There is a time recording system that makes daily working time and overtime on a daily basis transparent for all workers and employers. Working times of all workers during the last 24 months are to be documented. Rest breaks/days should also be documented during peak seasons.

*Record-keeping
of working times*

Degree of obligation: immediate requirement