



QA-CER recycled content scheme



Introduction

Today, there is a clear demand from the government, producers, and consumers to reuse materials. After all, our planet only has a finite amount of raw materials. Recycling waste is an essential part of reusing materials. It is therefore worthwhile to invest in recycling process and to integrate recycled materials, with or without virgin materials in the end product. Many companies are looking for avenues to create sustainable products by using recycled materials. These companies are looking for a way to communicate their efforts in a transparent way that inspires confidence. This is precisely the objective of our CENTEXBEL QA-CER Recycled Content initiative.

CENTEXBEL QA-CER Recycled Content is an international, independent, third-party certification system based on EN15343, including chain of custody. It goes beyond ISO14021, in that it identifies all possible waste streams that can be recycled so that it offers a comprehensive system. CENTEXBEL QA-CER Recycled Content guarantees the quality system regarding the recycling process and the use of recyclates, both in terms of the recyclate content and in terms of the quality of the product. With the aim of supporting the sustainability principle.

For whom

CENTEXBEL QA-CER is developed such that it suits many companies in different industries.

- Sorting and recycling companies of post-industrial and post-consumer waste from plastics, textiles or composites.
- Plastics processors, textile and composite producers who use post-industrial and post-consumer waste from plastics, textiles or composites.
- Assembly companies that make composite products with recyclate from plastic parts or textiles.

The QA-CER certification is on product or a product family level. These products or product families contain recycled content and can be compounds, semi-finished or finished products.

Why CENTEXBEL QA-CER Recycled Content?

- You want to increase the use of recycled material in your business.
- You want to guarantee the quality of both the recyclate and the recycled content.
- You want to bring out your efforts in the field of sustainability in a transparent way.
- You want to increase consumer confidence in products with recycled material (often considered to be of lower quality).



Scope of the scheme

The CENTEXBEL QA-CER certification relates to products that are produced using recycled materials in whole or in part. It is developed in such a way that it suits products or product families from companies located in the plastics, textiles, or composites value chain. Certified companies can make claims on recycled content in a controlled and transparent way, both on the amount of recycled content in their product and on the origin of the recycled content (pre-, postconsumer).

Product families shall be clearly defined and product in the product family shall only differ from each other on a very limited number of technical construction parameters and use the same type(s) of recycled input material.

At the basis of the QA-CER audit scheme lies the standard EN15343. This standard fixes the way how recycled content is determined in a product. The chain of custody model that is at the basis of this calculation, is controlled blending model as described in ISO 22095.

Traceability is an essential part of the certification and companies need to provide proof of the origin of the recycled material. To verify traceability, the input materials shall have a recognised supplier certificate attesting the origin of the recycled material.

Normative reference

EN ISO 472:2013/A1:2018 Plastics – Vocabulary + amendment 1: Additional items

ISO 22095:2020 Chain of custody – General terminology and models

ISO/IEC 17021-1:2015 Conformity assessment - Requirements for bodies providing audit and certification of management systems - Part 1: Requirements

ISO14021:2016 Environmental labels and declarations – Self-declared environmental claims (type II environmental labelling)

EN 15342 – Plastics - Recycled plastics - Characterization of recycled polystyrene (PS) recyclates

EN 15343 – Plastics – Recycled plastics - Plastics recycling traceability and assessment of conformity and recycled content

EN 15344 – Plastics – Recycled plastics - Characterization of polyethylene (PE) recyclates

EN 15345 – Plastics - Recycled plastics - Characterization of polypropylene (PP) recyclates

EN 15346 – Plastics - Recycled plastics - Characterization of poly(vinyl chloride) (PVC) recyclates

EN 15347 – Plastics - Recycled plastics - Characterization of plastics wastes



EN 15348 – Plastics – Recycled plastics - Characterization of poly(ethylene terephthalate) (PET) recyclates

ISO 9001- Quality management systems - Requirements

Definitions

Traceability

The ISO 22095:2020 standard defines traceability as the ability to trace a product's history, application, or place of manufacture. Traceability allows tracking the movement of a product and its components at certain stages of a process or operation.

controlled blending model

The ISO 22095:2020 standard defines controlled blending model as a Chain of Custody model in which materials or products with a set of specified characteristics are mixed according to certain criteria with materials or products without that set of characteristics resulting in a known proportion of the specified characteristics in the final output.

Requirements against which the products are evaluated.

Products certified according to the CENTEXBEL QA-CER certification scheme must meet the following requirements:

- Recycled content in a product and traceability of the recyclate as determined using EN 15343:2007
- Chain of custody model based on ISO 22095:2020

Recycled content in a product

Calculation of the recycled plastic content of the product represents the actual share of recycled materials used. Throughout the process, the ratio between inputs and outputs is always known for a given volume. Therefore, a percentage of recycled material can be provided in any case. In the evaluation made after the review of the documentation, the share of recycled materials is distributed to the products. QA-CER will document the balancing of volumes and perform a credibility check to verify that the amounts of input recycled materials used are reasonable with the amount of output products produced and their share of recycled content, considering additives and losses.

The share of Recycled Content of a product will be calculated for pre-consumer, postconsumer according to the following formula (which is in accordance with EN 15343:2007):



$$x = \frac{RC_{component}}{P_{mass}} * 100$$

Where:

- x : percentage of recycled content
- $RC_{component}$: mass of recycled content component in kg, with component either pre-, post-consumer recycled content
- P_{mass} : total mass of the product or component in kg **excluding** non-plastic materials such as ink, adhesives, coatings, metal, paper, ...)

In the formula, x represents the share of recycled content (pre-consumer, post-consumer) that can be reported separately. All other components (e.g., original plastics, additives, masterbatches, etc.) will be counted as non-recycled plastics.

Material specific standards EN15342, EN15344, EN15345, EN15346 and EN15347 define methods of specifying delivery conditions for recyclates. They give the most important characteristics and associated test methods for assessing recyclates intended for use in the production of semi-finished/finished products.

Traceability and chain of custody

Traceability of recycled materials is an important part of certification and the focus of audit evaluation. The CENTEXBEL QA-CER audit program focuses on traceability systems established within a process and operation and validates the chain of custody throughout the entire plastics value chain. To verify traceability, the auditors will check that recycled input materials are accompanied by a certificate issued by a recognised certification system.

CENTEXBEL QA-CER certification is based on the chain of custody controlled blending model as described in EN 15343:2007 and ISO 22095:2020. This model allows for adding recycled materials to other materials or substances in a batch size manner such that a precise calculation of content of recycled materials in the product, is possible.

This also requires that the company should keep detailed records (amount and origin) of the recycled content used in each production batch.

Certification process

Application

The “Application” step involves the evaluation of the request for certification, the planning and preparation activities prior to certification.



When a company (the applicant) expresses its intention to obtain certification according to the CENTEXBEL QA-CER Certification Scheme for one or more of its sites, it must complete the application that will be provided by CENTEXBEL.

CENTEXBEL will review the application and supplementary information provided by the company to ensure that the information is sufficient to develop an audit program, to resolve any differences in understanding between the applicant and the certification body.

CENTEXBEL will propose the audit plan, dates of the site visit and the audit team.

A full QA-CER certification cycle has a duration of 3 years. In case of the initial certification this cycle is composed of the initial audit, two surveillance audits in the first and second year following the initial audit. Before the end of the third year, a recertification audit marks a new certification cycle. All audits are on-site audits.

Initial certification

CENTEXBEL QA-CER shall verify that the company has correctly implemented a system to trace and record recycled content in products and if it uses the correct calculation of the recycled content in its products, for which it is trying to get certification. To this aim, CENTEXBEL shall review the site's conformity with the requirements by performing an audit. The initial audit is composed of 2 stages.

Stage 1

The objectives of stage 1 are the following:

- To review the status of the applicant and his understanding of the goals of the certification, his understanding of legislation, if relevant.
- To understand the applicant system for managing recycled materials in his facilities.
- To provide a focus for the planning of stage 2 based on sufficient understanding of the applicant's management system.

Stage 2

The objectives of stage 2 are to evaluate the implementation of the CENTEXBEL QA-CER requirements. This stage 2 shall take place at the site of the applicant. CENTEXBEL will check, using the audit scheme, if the company meets the requirements.

Once the audit visit is finished, the CENTEXBEL auditor shall prepare an audit report stating the non-conformities, observations, positive findings, and opportunities for improvement identified during the audit, to be signed by the auditor. The content of the audit report is confidential.

In the case of non-conformity, the facility will have a period of 30 days to provide evidence of corrective actions or to send a corrective action plan to the auditor of the certification body which will proceed to its study and evaluation. In control audits, the auditor will check the progress of implementation of the corrective action plan through appropriate documentary



evidence. Failure to implement the corrective action plan will result in revoking of the certification.

Maintaining certification

The certification body shall maintain certification based on demonstration that the applicant continues to satisfy the QA-CER requirements.

Surveillance audit

The surveillance audits shall be carried out each year and verify that the conditions that gave rise to the granting of the certificate are still in place and to ensure continuous improvement, through the correct implementation of the action plan proposed by the organization.

If the company was unable to implement the action plan for resolving minor non-conformities, then this will result in a major non-conformity.

If the company was unable to take appropriate measures to deal with major non-conformities within a period of 1 months, the certification body shall consider one of more of the following measures, depending on the urgency and/or importance of the non-conformity:

- Observation: if it is likely that a misunderstanding or negligence is at stake, the manufacturer shall at first be informed hereof in writing with the request to rectify and end the abuse. The latter shall reply to this in writing to allow the taken actions to be evaluated.
- Immediate withdrawal of the certificate or limitation of the application field : sent by registered mail
- Immediate suspension of a certificate during a well-defined period : sent by registered mail

Recertification audit

The certification body will carry out a recertification audit every three year, to check whether the conditions that gave rise to the granting of the QA-CER certificate are maintained.

This audit is an on-site audit with the same objectives as stage 2 of the initial audit.

During the recertification audit the following will be addresses:

- The effectiveness of the measures taken to prevent pellet spills in the light of internal and external changes,
- The commitment to maintain the effectiveness and the improvement of the measures to prevent pellet spill,



Performing an audit

An audit starts with an opening meeting and ends with a closing meeting, both following the principles of the ISO 17021-1 standard. During the audit the auditor shall follow the CENTEXBEL QA-CER checklist and will identify and record the audit findings. He shall also verify if findings from the previous audit have been implemented according to the agreed action plan. After the audit and during the closing meeting, the auditor shall prepare the audit conclusions and explain these conclusions and non-conformities in sufficient detail and verify that the conclusions and the non-conformities are understood by the applicant. The auditor can issue two types of non-conformities:

- A minor non-conformity that is not compromising the CENTEXBEL QA-CER requirements. Each minor non-conformity shall require an accepted (by the auditor) action plan. The corrective action to such a shortcoming shall be verified during the following inspection. If the corrective action and its implementations are considered insufficient within the set period, the minor non-conformity becomes a major shortcoming. The certificate holder will have a period of 30 days to provide to the auditor, a corrective action plan to mitigate minor non-conformities. The auditor will evaluate the corrective action plan and accept or refuse it. No certificate can be issued before the acceptance of the corrective action plan. The certification body shall review the implementation progress of the corrective action plans in the surveillance audit.
- A major shortcoming is a non-conformity compromising the CENTEXBEL QA-CER requirements. The certificate holder will have a period of 30 days to provide to the auditor, a corrective action plan to mitigate non-conformities. He shall perform the corrective actions within the period of 30 days and provide proof to the auditor of the implementation of the actions. If the corrective action and its implementation are considered insufficient, the corresponding certificate shall not be granted resp. be suspended or withdrawn.

A non-conformity shall be recorded against a specific CENTEXBEL QA-CER-requirement and shall contain a clear statement of the non-conformity. The complete CENTEXBEL QA-CER checklist will be annexed to this report.

The audit report is deemed confidential between the company and CENTEXBEL.

Review

CENTEXBEL will examine the evidence of conformity obtained during initial audit or the maintenance audit and established whether the specific requirements have been met.



Decision

The decision to award the QA-CER certificate will be taken by the certification body (CENTEXBEL). This decision will be based on objective observations and reports of the qualified auditor and weighted against the CENTEXBEL QA-CER criteria. CENTEXBEL can decide to award or to refuse the CENTEXBEL QA-CER certificate.

Attestation

In case of a positive decision, CENTEXBEL will (re)issue the certificate. If the company is seeking first certification and in the event of a negative outcome of the evaluation, CENTEXBEL will not issue the certificate and will inform the applicant of its decision. The applicant has the right to appeal against the decision.

When the applicant seeks recertification and in the event of a negative outcome, CENTEXBEL can reduce the scope, suspend, or withdraw of the certificate.

If surveillance shows nonconformities with the requirements, that are of such nature that immediate withdrawal is not necessary, CENTEXBEL can decide to suspend the certificate till nonconformities are resolved.

In case that nonconformities are of a serious nature or a breach against the certification rules is observed, CENTEXBEL can decide to withdraw the certificate. CENTEXBEL will inform the applicant in writing.

In any case, CENTEXBEL will inform the applicant and will explain the reasons for this refusal. The applicant has the right to appeal against the decision.

Modification of the certificate

The organization shall keep CENTEXBEL duly informed of changes in production processes that may affect the percentage of recycled content initially declared.

When the client requires an increase, whether in percentage or in a new product or product family, they must inform CENTEXBEL, thereby indicating new percentages or products to be included in the certificate. CENTEXBEL will examine the information and decide if a visit to the production site is necessary prior to modifying the certificate.

In view of the result of the technical review of the file, CENTEXBEL will decide on the modification of the certificate, proceeding to modify it to adapt it to the new situation. The certification number will not be changed.



Use of the certificate and the logo

Once the certificate is granted, the applicant will refer to the QA-CER certificate using the QA-CER logo.



The applicant is entitled to use the QA-CER logo on any manufactured product with post-consumer or pre-consumer recycled material that falls within the scope of the issued certificate. The certificate will have an annex that describes the certified products with the minimum recycled content.

The use of the logo and the reference to the certificate shall be used such that it does not create confusion about the product with recycled content. In the case of packaging, the applicant shall use the logo and the reference to the certificate such that it refers to the packaging and not to the product inside the packaging.