

Fibre-reinforced plastic composites — Declaration of raw material characteristics — Part 1: General requirements

Einführendes Element — Haupt-Element — Teil 1: Teil-Titel

Élément introductif — Élément central — Partie 1 : Titre de la partie

ICS:

Descriptors:

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Foreword

This document (prEN xxxx-1:2010) has been prepared by Technical Committee CEN/TC 249 “Plastics”, the secretariat of which is held by NBN.

This document is a working document.

prEN xxx consists of the following parts, under the general title *Fibre-reinforced plastic composites — Declaration of raw material characteristics*:

- Part 1: *General requirements* (this part)
- Part 2: *Additional requirements for resin, curing systems, additives and modifiers*
- Part 3: *Additional requirements for fibres*
- Part 4: *Additional requirements for fabrics*
- Part 5: *Additional requirements for core materials*

1 Scope

This part of the standard specifies the minimum general information to be declared for materials to be used for manufacturing fibre-reinforced plastic composites products.

The declaration includes requirements for the certificate of analysis (CoA). The purpose of the CoA is to verify that material properties and quality conforms to the declared values.

This part of the standard is applicable to resins, curing systems, additives and modifiers, fibres, fabrics and core materials.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN xxx-2, *Fibre-reinforced plastic composites — Declaration of raw material characteristics — Part 2: Additional requirements for resin, curing systems, additives and modifiers*

EN xxx-3, *Fibre-reinforced plastic composites — Declaration of raw material characteristics — Part 3: Additional requirements for fibres*

EN xxx-4, *Fibre-reinforced plastic composites — Declaration of raw material characteristics — Part 4: Additional requirements for fabrics*

EN xxx-5, *Fibre-reinforced plastic composites — Declaration of raw material characteristics — Part 5: Additional requirements for core materials*

ISO 80000-1:2009, *Quantities and units — Part 1: General*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 manufacturer

the organization which makes the material and/or the product in the form and condition in which it is delivered to the purchaser, either directly or through a supplier

[ISO 8591-1:1989, 2.1.9]

NOTE If a supplier modifies a material from the original manufacturer, the new material is no longer in the responsibility of the original manufacturer, and the supplier is, according to this standard, the manufacturer of the material.

NOTE A manufacturer may also be a supplier taking full responsibility of the original material.

3.2 shelf life

period of time after production during which a material or product kept under specified conditions retains its specified properties

NOTE Adapted from ISO 1382:2008

NOTE Shelf life for fabrics (fibre reinforcement) is equal to the shelf life of the used fibre.

3.3 supplier

organization or person that provides a product

NOTE Adapted from ISO 10006:2003.

NOTE The supplier may be different from the manufacturer.

NOTE It is the responsibility of the supplier to supply all relevant documentation with the material.

4 Content of a declaration

A declaration shall consist of information given in part 1 and one of the parts 2 to 5 of this standard (i.e. EN xxx).

The declared values given in part 2 to 5 of this standard shall be documented in a Certificate of Analysis (CoA) on request.

The units used in a declaration shall be expressed in accordance with the International System of units (SI), as specified in ISO 80000-1. Other units may be given, but only in addition to the SI units.

If required information exists in other documents, specific reference to these documents and/or sections in these documents is accepted.

Every page of a declaration document shall include the name of the material as used on the label, and shall be dated and numbered. The date indicated shall be the latest revision date. The page numbering system shall include the total number of pages or shall indicate the last page as such.

The previous revision date as well as the latest revision date shall be posted on the first page of a declaration.

The text of the declaration should be written in a language acceptable to the recipient.

5 General information to be declared

5.1 General declaration

The following information shall be declared:

- a) Reference to this part of EN xxx (i.e. EN xxx-1);
 - 1) If the declaration deviates from this standard, these deviations shall clearly be stated in the declaration.
- b) Type of material (i.e polyester resin, glass fibre, etc.);
- c) Material number or material code;
 - 1) This section shall state the identification of the material as used on the label. Material number or material code shall be unique designation which differentiates this material from any other material. There shall exist only one declaration (set of documents) to each identity or designation.
 - 2) If a material formulation is changed so that any property or information in the original declaration is changed, the material shall:
 - i) be given a new material number, code or name with a new relevant set of declaration documents, or;

- ii) if the material number, code or name is kept unchanged, be given a revision number or date that corresponds to the revision number or date on the new specific declaration has to be given.

3) The brand name shall be stated.

- d) Manufacturer;
- e) Supplier (i.e to be stated if different from the manufacturer);
- f) Location of manufacturing plant (i.e. valid only for the manufacturer of the delivered material);
- g) Shelf life;
- h) Packaging information (i.e packed for delivery);
- i) Transportation and storage requirements;

NOTE Information about special requirements for handling and storing other than required by Material Safety Data Sheet (MSDS)

5.2 Documentation available at delivery

The documentation at delivery of a material shall include the following information:

- a) The requirements given in 5.1, b) to h);
- b) Tracing information, exact code allowing for complete material traceability (i.e. batch-, lot- or disposition-number);
- c) Quantity for each unit delivered and the total quantity for the delivery;

NOTE The measuring unit for quantity may differ for different raw materials (i.e. barrel, volume, weight, width, meter/bobbins, kg/barrel, meter/roll, kg/roll, m³ for bulk quantity etc.)

- d) Date of production;

NOTE Specifies the date at which the material is produced. This date can be given as day, month, week and year. For large batches produced over a time period, the minimum information is to include week and year.

- e) Expire date;
 - 1) The date at which the product expires when handled and stored according to supplier's recommendation. For fabrics (reinforcement) the expire date is equal to the expire date of the fibres used.
 - 2) A reference to manufacturer's documents describing recommendation and/or requirements on storage and handling shall be given.

5.3 Labelling

The label of the material shall include the following information:

- a) The requirements given in 5.1 b), c) and d);
- b) The requirements given in 5.2 b) and d);
- c) Other legislations and directives may be applicable and shall then be followed.

The label shall either be marked on each package and/or on the total unit of delivery. The tracing information (5.2 b) shall be given on each delivered unit of material (i.e. pot, sheet, etc.).

6 Certificate of Analysis (CoA)

The content of the Certificate of Analysis (CoA) verifies that the delivered batch complies with all or parts of the declared properties. The certificate contains tracing information and shall be given by the supplier on request or/and in agreement with the customer.

The content of the certificate of analysis is described in the respective parts of this standard.

Bibliography

- [1] ISO 1382:2008, *Rubber — Vocabulary*
- [2] ISO 8591-1:1989, *Aerospace — Wrought aluminium and aluminium alloys — Inspection, testing and supply requirements — Part 1: General requirements*
- [3] ISO 10006:2003, *Quality management systems — Guidelines for quality management in projects*