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AENOR N Mark Specific Rules for polypropylene fittings for soil and waste discharge (low and high temperature) inside the building structure

Note: This document is a translation of the Spanish document RP 001.56 rev. 3 approved by the Plastics Technical Certification Committee (CTC-001). Spanish version always prevails over this translation.

RP 001.56

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Index

1 Purpose and scope

2 Definitions and special requirements

3 Sampling and testing for granting and maintaining the product N Mark certificate

3.1 Test to be carried out in factory

3.2 Sampling and tests to be carried out in the laboratory

3.3 Evaluation of test results

4 Manufacturer internal control

4.1 Characteristics under factory production control

5 Marking of certified products

Annex C Descriptive questionnaire for product

1 Purpose and scope

Pursuant to paragraph 3.2 of the General Rules on the Certification of Products and Services with N Mark, hereafter the General Rules, the present Specific Rules describe the specific certification scheme for polypropylene (PP) fittings for soil and waste discharge (low and high temperature) inside the building structure. The present Specific Rules complete the AENOR N Mark Specific Rules for plastic materials – common requirements (RP 001.00).

The General Rules always prevail over the present Specific Rules.

The N Mark for polypropylene (PP) fittings for soil and waste discharge (low and high temperature) inside the building structure hereafter the Mark, denotes product compliance with the UNE-EN 1451-1:2018 Standard.

Exceptionally in the way of acting of the Technical Committee for Certification of Plastics, it is authorized to request the certificate of Mark N of the product for the number of classes that the client wishes, considering the definition of class that appears in chapter 2 of this document.

In the event of requests to extend the range once the Product Mark N Certificate has been granted, the corresponding inspection, sampling and laboratory testing will be carried out. The number of tests to be carried out will be calculated as described in chapter 3 of this document, considering the number of classes for which the Mark is requested.

The client will submit to AENOR's consideration the commercial documentation projects (catalogues, rates, etc.) where the N Mark is to be used, before proceeding to the final edition.

2 Definitions and special requirements

Class: Set of fittings that have the same nominal dimensions and figure.

Application area code: A code used to indicate the permitted application area for which the fittings are intended as follows:

- "B": Code for the application area inside buildings.
- "BD": Code for the application area inside buildings and also buried inside the structure of buildings.

3 Sampling and testing for granting and maintaining the product N Mark certificate

3.1 Test to be carried out in factory (See RP 001.00)

AENOR will carry out the tests indicated in table 1 during the initial or surveillance inspection.

3.2 Sampling and tests to be carried out by the laboratory (See RP 001.00)

AENOR will select and marked the necessary samples to carry out in the laboratory the tests indicated in table 1.

3.3 Evaluation of test results

Table 1 contains the evaluation criterion for each test. the meaning of each code is described below:

The test result will comply with the provisions of the standard. No value out of tolerances will be allowed.

- **Criterion nº 1:** The test shall comply with the established in the Standard. Any value out of tolerance will not be allowed.
- **Criterion nº 2:** If there is a fitting out of specification, the test shall be repeated with four fittings of the same class, in this case any value out of tolerance will not be allowed.
- **Criterion nº 3:** If there is a fitting out of specification, the test shall be repeated with three fittings of the same class, in this case any value out of tolerance will not be allowed.
- **Criterion nº 4:** If there is a fitting out of specification, the test shall be repeated with five fittings of the same class, in this case any value out of tolerance will not be allowed.

TABLE 1

	TEST	GRANTING	MAINTAINING	RESULTS EVALUATION
TESTS TO BE CARRIED OUT BY THE INSPECTOR IN THE FACTORY	Appearance	2 fittings / reference	2 fittings / reference	1
	Mean outside diameter of the male part of the nut	2 fittings / reference	2 fittings / reference	2
	Mean inside diameter of the socket	2 fittings / reference	2 fittings / reference	2
	Wall thickness of the body and the socket	2 fittings / reference	2 fittings / reference	2
	Minimum length of the socket	2 fittings / reference	2 fittings / reference	2
TESTS TO BE CARRIED OUT BY THE LABORATORY	Heat behaviour	3 fittings of the 10% of references, maximum 8	3 fittings of the 10% of references, maximum 5	3
	Watertightness (1)	3 reference	3 reference	1
	Airtightness (1)	3 reference	3 reference	1
	Elevated temperature cycling (B)	According to UNE EN 1055 for the system		1
	Elevated temperature cycling (BD)	According to UNE EN 1055 for the system		1
	Tightness of elastomeric ring seal joints (BD)	1 reference	1 reference	1

(1) Not required for butt fusion joints

4 Manufacturer internal control

4.1 Characteristics under factory production control (See RP 001.00)

— **Raw materials:** When the raw material has not been granted the product N Mark certificate, the manufacturer that uses it must guarantee that the mixtures and the compounds that intervene in the manufacture of the fittings possess the suitable characteristics.

— **Control during manufacturing**: The tests and their frequency are indicated in table 2.

— **Final Product Control**: The tests and their frequency are stated in the table 2.

TABLE 2

TESTS	FREQUENCY
Appearance	Every 4 hours / per injection line
Mean outside diameter of the male part of the nut (*)	
Mean inside diameter of the socket (*)	
Wall thickness of the body and the socket	
Minimum length of the socket	
Heat behaviour	Per manufacturing period. Minimum once per day
Watertightness (1)	Minimum once per year / type of joint
Airtightness (1)	
Elevated temperature cycling (B)	
Elevated temperature cycling (BD)	
Tightness of elastomeric ring seal joints (BD)	

(1) Not required for butt fusion joints.

(*) Test shall be carried out alternatively in each control for the parts obtained from the different positions of the cast.

5 Marking of certified products (See RP 001.00)

The minimum required marking is the following:

Marking of the fittings

— N Mark logotype, with a size not less than 5mm.

— Trademark.

— Material "PP" or "PP-H".

— Nominal diameter and nominal angle.

— Application area code.

— Minimum wall thickness or pipe series (additional marking for BD application area).

— Number of the applicable standard: UNE EN 1451.

Example:

AENOR - N - Trademark - PP - 50 – 67º 30' - BD - UNE EN 1451

Marking of the packaging

— Reference to the word: AENOR.

— Number of the certificate or the contract signed with AENOR: 001/XXX.

— Manufacturer´s information (manufacturing period, year, and month, etc).

Example:

AENOR - 001/XXX – M - 10/2020

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Annex C

Descriptive Questionnaire for fittings

CLIENT:

MANUFACTURER COMPANY:

FACTORY SITE:

PRODUCT:

STANDARD:

TRADEMARK(S):

DATE:

RANGE FOR WHICH THE MARK IS REQUESTED					
REFERENCE	**FIGURE**	**DIAMETER (mm)**	**APLICATION AREA**	**ANGLE**	**JOINT SYSTEM**

For any change of these date, the client will send to the Committee Secretary this descriptive questionnaire updated.

…….…… on …… of …… 20…..…

SIGNATURE AND STAMP OF THE MANUFACTURER