

AENOR Mark Specific Rules for plastics polyethylene (PE) fittings for water supply intended for human consumption

Note: This document is a translation of the Spanish document “RP .
01.70 rev 0” approved by the Plastics Technical Certification Committee
(CTC-001). Spanish version always prevails over this translation.

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1 Purpose and scope

Pursuant to paragraph 3.2 of the General Rules on the Certification of Products and Services, hereafter the General Rules, the present Specific Rules describe the specific certification scheme for plastics Polyethylene (PE) fittings for water supply intended for human consumption. The present Specific Rules complete the AENOR Mark Specific Rules for plastic materials – common requirements (RP 01.00). The General Rules always prevail over the present Specific Rules.

The AENOR mark for plastics polyethylene (PE) fittings for water supply intended for human consumption, hereafter the Mark, denotes product compliance with the UNE 12201-1:2003 and 12202-3:2003.

2 Definitions

Class: It is called a class of fittings to the set of the same ones that have the same nominal dimensions and shape.

Type: The following types are defined:

- Butt fusion fittings,
- Electro fusion Fittings
- Socket fusion Fittings

At the same time, for polyethylene(PE) fittings for water supply intended for human consumption, pending the adoption of the European criterion of verification of the effect on water quality of these products, the licensee will provide to AENOR Technical Services, during the inspection visit, that he has evidences that the product complies with RD 140/2003. Therefore, the product does not contain any of the substances listed in Annex 1 of the mentioned document.

3 Sampling and testing for granting and maintaining the AENOR product certificate

3.1 Test to be carried out in factory (See RP 01.00)

AENOR Services will carry out the test indicated in table 1, for each type where required, during the initial or surveillance inspection.

3.2 Sampling and tests to be carried by the laboratory (See RP 01.00)

AENOR services will select and marked the necessary samples to carry out in the laboratory the tests stated in table 1, for each type, as proceed.

	TESTS	GRANTING/MAINTAINING	RESULTS EVALUATION (*)
TESTS TO BE CARRIED OUT BY THE INSPECTOR IN THE FACTORY	Appearance and design	1 fitting per diameter	1
	Nominal outside diameter	1 fitting per diameter	2
	Wall thickness	1 fitting per diameter	3
	Ovality	1 fitting per diameter	1
	Mean inside diameter	1 fitting per diameter	2
	Minimum bore	1 fitting per diameter	1
	Length(L1min, L1 max, L2min)	1 fitting per diameter	1
	Electrical characteristic for electrofusion fittings	1 fitting per diameter	1
	High (H)	According to the manufacturer specifications	1
TESTS TO BE CARRIED OUT BY THE LABORATORY	Melt flow rate	1 reference randomly	1
	Oxidation induction time	1 reference randomly	4
	Hydrostatic strength 20°C 100 h	20 % of diameters Minimum 2 Maximum 5	1
	Hydrostatic strength 80°C 165 h	20 % of diameters Minimum 2 Maximum 5	1
	Hydrostatic strength 80°C 1000 h	1 class	1
	Tensile strenght for butt fussion fittings	2 fittings randomly	1
	Impact resistance of tapping tees	1 fitting randomly	1
	Decohesive resistance (only electrofusion)	2 fittings randomly	1

TABLE 1

(*) The evaluation criteria of this table are described in section 7.6, evaluation test results, of RP 01.00.

NOTE (1): For the assembly of mechanical tests, it will have the correspondent instructions for each manufacturer. The manufacturer shall provide pipes to perform such tests. Manufacturer shall be allowed to send to the lab the assembly carried by themselves. In the event that the laboratory demands, because it considers necessary, the applicant or licensee of the certificate, shall sent the competent technical staff to perform the required assemblies.

4 Manufacturer internal control

4.1 Characteristics under factory production control

All the characteristics under factory production control stated in this paragraph are referred to each type of polyethylene fittings.

Raw materials: when the raw material has not been granted the AENOR product 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. In additions, should verify that the specifications provided in the Certificate of Analysis of the material comply with the established purchase requirements.

Manufacturing controls: Tests and their frequency are stated in table 2.

Final product controls: Tests and their frequency are stated in table 2.

TEST	FREQUENCY
Appearance and design	Every 4 h per injection line and in case of dimensional changes
Nominal outside diameter	
Wall thickness	
Length (L1min, L1max, L2min)	
Ovality	
Mean inside diameter	
Minimum bore	
Electrical characteristic for electro fusion fittings	
High (H)	According to the manufacturer specifications
Melt flow rate	Per period of production, minimum every week
Oxidation induction time	Every 6 months, per supplier of raw material
Hydrostatic strength a 20° 100 h	1 reference per year and in case of geometrical changes, or in case of raw material changes or raw material supplier changes.
Hydrostatic strength 80°C 165 h	Per period of production
Hydrostatic strength 80°C 1000 h	In case of design changes or raw material changes
Tensile strength for butt fusion fittings	1 reference per year and in case of geometrical changes, or in case of raw material changes or raw material supplier changes.
Impact resistance of tapping tees	1 reference per year and in case of geometrical changes, or in case of raw material changes or raw material supplier changes.
Decohesive resistance (only electro fusion)	1 reference per year and in case of geometrical changes, or in case of raw material changes or raw material supplier changes.

TABLE 2

5 Marking of certified products (See RP 01.00)

The minimum required marking of the fitting is the following:

- trademark;
- nominal diameter of pipe and series/SDR
- manufacturer's information
- SDR fusion range*
- material and designation *

**This information may be printed on a label on the fitting or in an individual bag*

The minimum required marking of the fitting packaging is the following.

- AENOR logotype with a size not less than 3 mm
- reference to the word AENOR
- number of contract signed with AENOR: 001/XXX

- reference to the standard UNE EN 12201-3
- material and designation
- pressure range in bar
- tolerance (only for butt fusion fittings $dn \geq 280\text{mm}$)
- SDR fusion range

Annex C-2: Descriptive Questionnaire for fittings

APPLICANT COMPANY:

MANUFACTURER COMPANY:

FACTORY SITE:

PRODUCT:

MATERIAL:

TYPE OF FITTINGS:

Butt fusion

Electro fusion

Socket fusion

STANDARD:

TRADE MARK(S):

DATE:

THE APPLICANT SHALL FILL IN A QUESTIONNAIRE FOR EACH FITTING TYPE

FIGURE	REFERENCE (INTERNAL REF. OF MANUFACTURER)	DIAMETERS	NOMINAL PRESSURE (PN) OR SDR

For any change of these date, the licensee company will send on duplicate to the Committee Secretary this descriptive questionnaire updated.

STAMP OF THE MANUFACTURER