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AENOR N Mark Specific Rules for flexible hose assemblies in drinking water installations

RP 001.92

Revision 0
Date 2020-09-29

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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 flexible couple hoses for water installations for human consumption. 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 flexible hose assemblies in drinking water installations, hereafter the Mark, denotes product compliance with the standard SANS 1808-5:2010.

2 Definitions and special requirements

DN: Set of connections that have the same inner and outer diameter.

Type of hose: Hoses that are produced with the same base materials (eg: inner pipe and braiding).

The certification applicants shall submit a separate application for each type of hose.

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 test 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 test indicated in table 1, where required.

The dimensional control test over the fittings will be done on free pieces, while the length of the hoses will be measured on the finished product. In both cases, the dimensional control will be done based on the dimension declared by the manufacturer as indicated in Annex C.

3.3 Assessment result criteria

The assessment criteria are indicated in table 1. The meaning of the criteria is as follow:

— **Evaluation 1:** The test result shall conform with the requirements of the Standard. Any value out of tolerance is not accepted.

— **Evaluation 2:** If only one of the test samples tested has a not conform test result, the test shall be repeat on other five test samples. In this case, any value out of tolerance is not accepted.

For evaluation of point 4.1 Materials, the inspector will make the necessary checks on factory.

	TESTS	GRANTING	SURVEILLANCE	ASSESSMENT RESULT
TESTS TO BE CARRIED OUT BY THE INSPECTOR IN THE FACTORY	FIXED AND REVOLVED MALE FITTINGS AND FEMALE FITTING REVOLVED, STRAIGHT AND ELBOW			
	Minimum lenght of thread (l)	10 fittings randomly	10 fittings randomly	2
	Size of thread (th) per type of thread (conical or cylindrical)	10 fittings randomly	10 fittings randomly	2
	PLAIN END FITTINGS WITH AND WITHOUT RECESS			
	Minimum length (l1, l2, l3)	10 fittings randomly	10 fittings randomly	2
	Inner diameterr (h)	10 fittings randomly	10 fittings randomly	2
	External diameter (d1 y d2)	10 fittings randomly	10 fittings randomly	2
	Wall thickness (t)	10 fittings randomly	10 fittings randomly	2
	Wrench size (E)	10 fittings randomly	10 fittings randomly	2
	End Caps	10 fittings randomly	10 fittings randomly	2
	HOSES			
	Length	10 hoses randomly	10 hoses randomly	2
TESTS TO BE CARRIED OUT BY THE LABORATORY	FITTINGS			
	Deszincification resistance (see note 1)	1 fitting randomly	1 fitting randomly	1
	Torque test (cap nuts)	1 cap randomly	1 cap randomly	2
	HOSES			
	Pressure cycling resistance	1 test / DN	1 test / DN	1

TABLE 1

Note 1: Just for coppers alloy fittings.

4 Manufacturer internal control

4.1 Characteristics under factory production control (See RP 001.00)

- **Raw material:** Manufacturer must ensure that all components of hoses involved in the manufacture of the same ones having suitable characteristics.
- **Controls during manufacturing:** The tests and their frequency are indicated in table 2.
- **Final product control:** The tests and their frequency are indicated in table 2.

TEST	FREQUENCY
DIMENSIONAL CONTROL ON FIXED AND REVOLVED MALE FITTINGS AND FEMALE FITTINGS – REVOLVED, STRAIGHT AND ELBOW	
Minimum lenght of thread (l)	According to internal procedure of the manufacturer
Size of thread (th) per type of thread (conical or cylindrical)	
DIMENSIONAL CONTROL ON PLAIN END FITTINGS WITH AND WITHOUTH RECESS	
Minimum length (l1, l2, l3)	According to internal procedure of the manufacturer
Inner diameterr (h)	
External diameter (d1 y d2)	
Wall thickness (t)	
Wrench size (E)	
End Caps	
DIMENSIONAL CONTROL ON HOSES	
Length	According to internal procedure of the manufacturer
TESTS ON FITTINGS	
Deszincification resistance (see note 1)	According to internal procedure of the manufacturer
Torque test (cap nuts)	
TESTS ON HOSES	
Pressure cycling resistance	One test every six months/ DN

TABLE 2

Note 1: Just for coppers alloy fittings.

5 Marking of certified products

5.1 Marking of the pipes

The marking on the hoses will carry out every meter and shall include at least the following:

— N Mark logotype, with a size not less than 2,7 mm;

— Manufacturer´s trademark or identification;

— At least the last two digits of the production year.

The inner pipe must be marked with the name or trademark of the manufacturer or supplier and production date.

5.2 Marking of the packaging

The minimum required marking of the packaging is the following:

— Name of the producto;

— Reference to this standard SANS 1808-5;

— Nominal pressure of 10 bar (PN);

— Design temperature 70°C;

— Nominal diameter;

— Legth L, in mm;

— Type of fitting.

Example:

Hose assembly - SANS 1808-5 – PN 10 – 70 °C – DN xx – Lxxx – Fitting types X y X

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Anexo C

Descriptive questionnaire for flexible hose assemblies in drinking water installations

CLIENT:

MANUFACTURER COMPANY:

FACTORY SITE:

PRODUCT:

STANDARD:

TRADEMARK(S):

DATE:

FILL IN A FORM (ANNEX C) PER TYPE OF HOSE

NOMINAL DIAMETER (Dint x Dext)	
INNER PIPE	
BRAIDING (specify the material)	
LENGTHS (mm)	
TYPES OF COPPER ALLOY USED FOR THE FITTINGS	

TYPE OF FITTING

SIZE AND TYPE OF THREAD (CONICAL O CILINDRICAL)	**FITTING (According to Table 1 SANS 1808-5)**

For any extension of the range, the client will send the Committee Secretary this descriptive questionnaire updated.

…….…… on …… of …… 20…...

SIGNATURE AND STAMP OF THE MANUFACTURER