

# PRODUCT SPECIFICATION

# EloFIT

M001BF - REV.2 28/02/2017

According to the Commission Decision 472/1999 EC and the Regulation No. 305/20111 of the EU:  
System 4.

Conveyance of water in pressured PE pipes, fittings and armatures for general purposes and for human consumption.

Intended use is construction of pressure pipelines, buried or above ground, for water, in the DN/OD 20-1000 mm dimension range, PN16 bar operating pressure.

## 1. FEATURES

Manufacturer	<b>NUPI INDUSTRIE ITALIANE SpA</b> Via Stefano Ferrario 8, Z.I. Sud-Ovest Loc. Sacconago- 21052 Busto Arsizio (VA) - ITALY
Brand name	<b>ELOFIT</b>
Type of accessory	<b>SPIGOT FITTINGS</b>
Sizes	<b>20 to 800 mm – SDR11 (depending on figures)</b> <b>63 to 1000 mm – SDR17/17.6 (depending on figures)</b> <b>63 to 500 mm – SDR9 (depending on figures)</b> <b>63 to 450 mm – SDR7.4 (depending on figures)</b>
Resin	<b>BLACK VIRGIN HDPE</b> <b>PE100 CLASSIFIED (Ref. Std. ISO 12162)</b> <b>MRS 10.0 MPa (Ref. Std. ISO 9080)</b> <b>ISO 1872-PE,E/M-ACGHL,50-T003/006</b>
Reference Standards	<b>EN 1555</b> Plastics piping systems for the supply of gaseous fuels Polyethylene (PE) - PARTS -1, -2, -3, -4, -5, -7 <b>EN 12201</b> Plastics piping systems for water supply, and for drainage and sewerage under pressure. Polyethylene (PE) - PARTS -1, -2, -3, -4, -5, -7 <b>EN-ISO 15494</b> Plastics piping systems for industrial applications -- Polybutene (PB), polyethylene (PE) and polypropylene (PP) -- Specifications for components and the system -- Metric series <b>FM 1613</b> Polyethylene (PE) Pipe and Fittings For Underground Fire Protection
Traceability system	<b>BATCH NUMBER, MANUFACTURING DATE (WEEK/MONTH- YEAR)</b> <b>ISO 12176-4 BARCODE</b>

## 2. APPLICATION

Use	<b>ON PRESSURE PIPES AND FITTINGS CONFORMING TO EN 1555, EN 12201, ISO 4437, ISO 4427, EN-ISO 15494</b>
Compatibility	<b>NATURAL GAS, WATER, INDUSTRIAL APPLICATIONS</b>
Operating temperature	<b>MAX 40°C</b> DERATING FACTORS FOR PRESSURE MUST BE CONSIDERED WHEN TEMPERATURE IS ABOVE 20°C (REF.STD. UNI-EN 1555 AND UNI-EN 12201)
Pressure rating	<b>REFER TO TABLE BELOW</b>



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PRESSURE RATING (bar) at 20°C		
SDR	Water	Gas
11	PN 16	MOP 10*
17	PN 10	MOP 6*
7.4	PN 25	MOP 10*
9	PN 20	MOP 10*

\* Or according with Country Regulations but in no case exceeding Maximum Operating Pressure (MOP)

### 3. INSTALLATION

The fittings referred in the present Product Specification are intended to be installed by butt fusion and electrofusion (with specific e/f fittings) to HDPE pipes and fittings.

For installation refer to ISO 21307, EN 12007-2 and manufacturer's instructions.

Fusion jointing must always be performed by qualified persons, through the use of conforming equipment. Pressure testing after installation must be executed according with EN 12327 and Company procedures.

Weldability	<b>ELECTROFUSION WITH PE80 – PE100 RESINS (ISO 12162 CLASSIFIED)</b>
Fusion range	<b>SDR7.4 to SDR17.6 (WITH SPECIFIC E/F FITTINGS)</b>
Installation conditions	<b>AMBIENT TEMPERATURE: -5°C to +40°C</b>
Reference Standards	<b>EN 12007-2</b> Gas infrastructure. Pipelines for maximum operating pressure up to and including 16 bar. Specific functional requirements for polyethylene (MOP up to and including 10 bar)

Weldability	<b>BUTT HEAT FUSION WITH PE80 – PE100 RESINS (ISO 12162 CLASSIFIED)</b>
Fusion range	<b>ONLY FUSION WITH SAME SDR</b>
Installation conditions	<b>AMBIENT TEMPERATURE: -5°C to +40°C</b>
Reference Standards	<b>ISO 21307</b> Butt fusion jointing procedures for polyethylene (PE) pipes and fittings used in the construction of gas and water distribution systems

For welding instructions and support, please consult Nupi website : [www.nupiindustriaitaliane.com](http://www.nupiindustriaitaliane.com) > Literature > Elofit > Installation instructions ; video-instructions are available on Youtube at Nupi account.  
**CURRENT LAWS AND RULES FOR SAFETY MUST BE RESPECTED DURING INSTALLATION.**

## 4. PERFORMANCE and QUALITY REQUIREMENTS

CHARACTERISTIC	TEST METHOD	REQUIREMENT
Dimensions, aspect, marking	ISO 3126	Conformity with EN 1555 / EN 12201
Hydrostatic strength	ISO 1167	Failure > 100 h, 20°C, 12.0 MPa (hoop stress) Failure > 165 h, 80°C, 5.5 MPa (hoop stress) Failure > 1000 h, 80°C, 5 MPa (hoop stress)
Tensile strength of the joints	ISO 13953	Ductile decohesion of joint / Pipe break (at 23°C, -10°C, +45°C)
Oxidation Induction Time	ISO 11357-6	> 20 minutes
Hygienic properties	National Reg.	Compliant

## 5. STORAGE

Store in a dry place, away from direct sun exposure and UV rays, with temperature in the range -20°C , +50°C. Avoid shocks and stresses, avoid contamination with water and chemicals. Remove the fitting from packaging only immediately before installation.

### RECOMMENDATIONS FOR THE DISPOSAL:

POLYETHYLENE USED FOR THIS ACCESSORY IS RECYCLABLE: DISPOSE THROUGH AUTHORISED CENTRES. DO NOT DISPERSE WRAPPING AND PACKAGING OF THE PRODUCT, RECYCLE THROUGH COLLECTION.

**THIS SPECIFICATION SUPERCEDES ALL PREVIOUS PRODUCT SPECIFICATIONS AND REVISIONS.**

**ELOFIT PRODUCTS ARE SUBJECT TO CONTINUOUS IMPROVEMENT: TECHNICAL DATA MAY CHANGE WITHOUT NOTICE.**



Nupi Industrie Italiane SpA