

BUTT FUSION FITTINGS

1. FEATURES

Manufacturer	NUPI INDUSTRIE ITALIANE SpA Via Stefano Ferrario 8 -Z.I. Sud-Ovest Loc. Sacconago-21052 Busto Arsizio (VA) - ITALY
Brand name	ELOFIT
Type of accessory	TEES, REDUCED TEES, REDUCERS, END-CAPS, 45° ELBOWS, 90° ELBOWS, WYE FITTINGS, STUB-ENDS, BEVELED STUB-ENDS, 'MJ' ADAPTERS
Sizes	2" to 36" IPS – SDR11, SDR17 2" to 24" IPS – SDR9, SDR7 2" to 24" DIPS – SDR11, SDR9
Resin	PE4710 / PE100 BLACK VIRGIN HDPE HDB 1600 psi , 73°F (Ref.Std. ASTM D2837) MRS 1450 psi , 68°F (Ref.Std. ISO 9080) Cell Classification 445486C / 445576C (Ref.Std. ASTM D3350) NSF 61 Listed
Reference Standards	ASTM D2513 Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings. ASTM D3261 Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing. ASTM D3350 Standard Specification for Polyethylene Plastics Pipe and Fittings Materials. AWWA C901 Polyethylene (PE) Pressure Pipe and Tubing, ½ In. (13 mm) through 3 In. (76 mm), for Water Service. AWWA C906 Polyethylene (PE) Pressure Pipe And Fittings, 4 In. (100 mm) Through 63 In. (1,600 mm), For Water Distribution And Transmission. FM 1613 Polyethylene (PE) Pipe and Fittings For Underground Fire Protection ANSI/NSF 14 Plastics piping system components and related materials ANSI/NSF 61 Drinking water system components – Health effect

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2. APPLICATION

Use	ON PRESSURE PIPE AND FITTINGS CONFORMING TO ASTM F714, D2513, D3035
Compatibility	NATURAL GAS, WATER, SEWERAGE, GEOTHERMAL, INDUSTRIAL APPLICATIONS (Ref. PPI TR-19)
Operating temperature	MAX 140°F DERATING FACTORS FOR PRESSURE WHEN TEMPERATURE IS ABOVE 73°F
Pressure rating	DEPENDS ON FLUID, SDR, DESIGN FACTOR - REFER TO TABLE

PRODUCT SPECIFICATION



PRESSURE RATING (psi) at 73°F					
SDR	Nominal	Water (0.63 DSF)	Water (0.5 DSF)	Gas (0.32 DSF)	Gas (0.4 DSF)
11	230	200	160	100	125
13.5	185	160	128	80	100
17	160	125	100	65	80
9	290	252	200	100	125
7	362	336	266	100	125

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3. INSTALLATION

The fittings referred in the present Product Specification are intended to be installed by butt fusion and electrofusion (through separate fittings) to pipes and fittings. Refer to ASTM F2620 and PPI TR-33 for butt-fusion installation. Fusion jointing must always be performed by qualified persons, through the use of conforming equipment. Pressure testing after installation must be executed according with ASTM F2164 and/or Company's procedures.

Weldability	BUTT HEAT FUSION WITH PE 4710-3608-3408-2708-2406, PE100, PE80 CONFORMING TO ASTM D3350 AND PPI TR-4
Fusion range	SDR11
Installation conditions	AMBIENT TEMPERATURE: 23°F to 104°F
Reference Standards	ASTM F2620 Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings PPI TR-33 Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe ASTM F2164 Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure

4. PRODUCT PERFORMANCE

CHARACTERISTIC	TEST METHOD	REQUIREMENT
Dimensions, aspect, marking	ASTM D2122	Conformity with ASTM D2513 and D3261
Hydrostatic strength	ASTM D1598	Failure > 200 h, 80°C, 750 psi (hoop stress) Failure > 1000 h, 80°C, 660 psi (hoop stress)
Pressure burst test	ASTM D1599	Failure after 60-70 s, 2900 psi (hoop stress)

5. STORAGE AND WARRANTY

Store in a dry place, away from direct sun exposure and UV rays, with temperature in the range 0°F – 120°F. Avoid shocks and stresses, avoid contamination with water and chemicals. Remove the fitting from packaging immediately before installation.

THIS SPECIFICATION SUPERCEDES ALL PREVIOUS PRODUCT SPECIFICATIONS.

M001BF	7	07/19/2023	M. Rossi - <u>PRODUCT MANAGER</u>	R. Barbera - <u>QUALITY MANAGER</u>
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