

PRODUCT TECHNICAL SPECIFICATIONS

ELECTROFUSION COUPLING



1. EXTENT

Welded fittings for polyethylene pipes

2. IMPLEMENTATION

Polyethylene Water and Natural Gas Systems

3. MATERIAL PROPERTIES

- Guaranteed Pressure Value;
Ø 63 mm – Ø 160 mm: 16 Bar / 20 °C / Water
Ø 63 mm – Ø 160 mm: 10 Bar / 20 °C / Gas
- Long-lasting use,
- Ideal welding time, HDPE 100 certified raw material,
- Optionally removable Pipe Support Ring (stopper),
 - 4 mm Connection pin
- Electrofusion Fittings;
- EN 12201-3
- EN 1555-3

Standards are produced.

4. APPEARANCE

When viewed without the use of a magnifying glass, the internal and external surfaces of the inserts shall be smooth and clean, free from any flaking, pitting or other surface defects that would prevent their conformity to this International Standard.

No component of the insert shall show any signs of damage, scratches, pitting, swelling, blistering or cracking that would compromise the conformity of the part to the provisions of this International Standard.

5. PACKAGING

PE fittings are placed on the market in the specified quantity in boxes/bags so that they will not be damaged during transportation.

6. MARKING

On the electrofusion couplings offered to the market;

- Brand information (POELSAN),
- Design Pressure (PN),
- Nominal Diameter (mm),
- Body Material (PE100),
- Manufacturing Date
- Source barcode / source information

On the packaging;

- Name of the product, code,
- Size of the product,
- Standard number,
- Area of use,
- Quantity of the product,
- Company name, address and other information (brand etc.),

7. USAGE INFORMATION

- PE Pipe ends should be cut properly (at right angles to the pipe axis).
- PE Pipe surfaces should be clean, (should be shaved with a rasp etc.)
- PE Pipe and fittings should be cleaned with industrial cleaning wipes before welding.
- Ovality in pipes should not exceed 1.5% of the outer diameter. Otherwise, pipe clamps should be used.
- Electrofusion Coupling is placed on the pipe up to the support ring. In products without a support ring, it should be marked and centered.
- For welding, the welding barcode on the product should be read or entered manually.
- Weld indicator pins should be checked after welding.

8. INSPECTION AND EXPERIMENTS

TEST DEFINITION	TEST CONDITIONS	METHOD	ACCEPTING CRITERIA	RAW MATERIAL TYPE	TEST DURATION
Hydrostatic strength at 20°C	20°C / 10 Mpa	TS EN ISO 1167-1 TS EN ISO 1167-4	There should be no leakage, cracking, etc.	PE80	100
	20°C / 12 Mpa		There should be no leakage, cracking, etc.	PE100	100
Hydrostatic strength at 80°C	80°C / 4,5 Mpa	TS EN ISO 1167-1 TS EN ISO 1167-4	There should be no leakage, cracking, etc.	PE80	165
	80°C / 5,4 Mpa		There should be no leakage, cracking, etc.	PE100	165
Hydrostatic strength at 80°C	80°C / 4,0 Mpa	TS EN ISO 1167-1 TS EN ISO 1167-4	There should be no leakage, cracking, etc.	PE80	1000
	80°C / 5,0 Mpa		There should be no leakage, cracking, etc.	PE100	1000
Cleavage strength for electric welded pipe end fittings	23°C	ISO 13954 or ISO 13955	Initial break length $\leq$ L2/3 break error	PE100	
Tensile strength for butt weld fittings - spigot end fitting	23°C	ISO 13953	Fracture test: -ductile: pass -brittle: do not pass	PE100	
In case of error at 80°C, repeating test	80°C / 4,5 Mpa	EN ISO 12201-3	There should be no leakage, cracking, etc.	PE80	165
	80°C / 5,4 Mpa		There should be no leakage, cracking, etc.	PE100	165
Pressure drop	Max. Diameter up to 63	ISO 4059:1978	Pressure drop declaration	PE100	
RAW MATERIAL TESTS					
Melt mass flow rate (MFR) for PE 80 and PE 100	5 kg / 190°C / 10 min.	TS EN ISO 1133-1	(+) Change in MFR with 20% processing $0.20 \leq \text{MFR} \leq 1.40$	PE100	10 min.
Raw Material Density	0,95- 0,96 gr./cm ³	ISO 1872-2 ISO 1183		PE100	
Thermal Stability (Oxidation induction time)	Oxygen at 210°C (15 $\pm$ 2) mg	ISO 11357-6	≥ 20 min.	PE100	

9. PRODUCT DIMENSIONS

Merkez : Şabanoglu OSB Mahallesi Ulubatlı Caddesi No.6 Tekkeköy / SAMSUN – TÜRKİYE

Tel. +90 362 266 75 24

<http://www.poelsan.com>

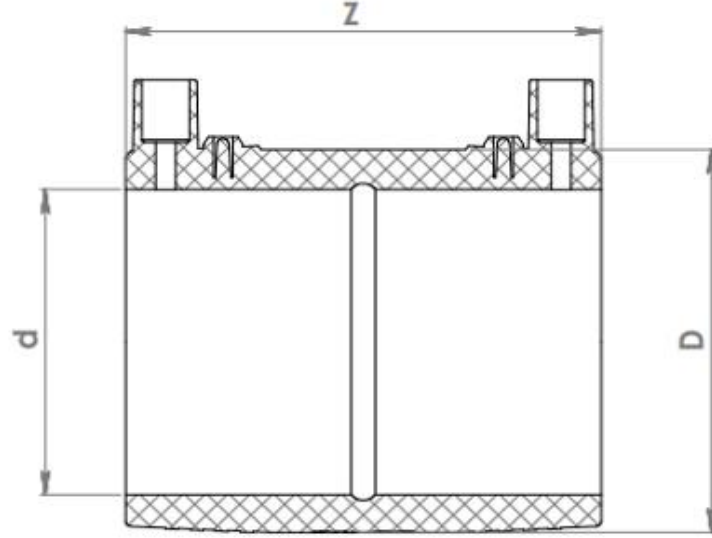
Mersis No.: 0-7300-3767-0100015 Ticaret Sicil No.: 391-Tekkeköy

Faks. +90 362 266 77 51

poelsan@poelsan.com

Şube : Şabanoglu OSB Mahallesi Yaşar Doğu Caddesi No. 23 Tekkeköy / SAMSUN – TÜRKİYE

Mersis No.: 0-7300-3767-0100026 Ticaret Sicil No.: 2203-Tekkeköy



ELECTROFUSION COUPLING DIMENSIONS

CODE	EXPLANATION	d	Z	D
EF16010606	63 E.F COUPLING	63	95	80
EF16010707	75 E.F COUPLING	75	103	95
EF16010808	90 E.F COUPLING	90	116	113
EF16010909	110 E.F COUPLING	110	140	136
EF16011010	125 E.F COUPLING	125	150	154
EF16011111	140 E.F COUPLING	140	160	171
EF16011212	160 E.F COUPLING	160	170	196