



Product description

Silane grafted compound, moisture curable by addition of a catalyst masterbatch (Sioplas[®] method). This material complies with RoHS requirements.

Application: Polidan[®] S/I 20 is used for the production of fittings for domestic hot and cold water supply for both monolayer and a plastic multilayer pipe solutions

Standard complying

DVGW (W270, KTW-A); NSF (STD-61); WRAS (BS6920)*

Availability

Africa & Middle East, Asia Pacific, Europe, North America

Verify commercial availability and registration status in each country with local sales representative

* at the date of publication of this datasheet

Typical properties ⁽¹⁾	nominal value	unit	test method
Physical			
Density at 23°C	0.956	g/cm ³	ASTM D792
Apparent density ⁽²⁾	550	kg/m ³	ASTM D1895
Melt Flow Index, 190°C/2.16 kg ⁽²⁾	2.8	g/10'	internal method
Gel Content – Crosslinking level	> 65	%	EN 579
Hardness, Shore D	57	-	ISO 868
Mechanical			
Long Term Hydrostatic Strength MRS	12.5	MPa	ISO 9080
Tensile Modulus at 23°C	1330	MPa	
Tensile Strength at break at 23°C	> 20	MPa	ISO 527-2
Tensile Elongation at break at 23°C	> 350	%	
Thermal			
Vicat Softening Temperature (10 N)	126	°C	ISO 306
CLTE – Flow at 20°C	1.5 E-4	cm/cm/°C	ASTM D696
Specific Heat at 23°C	1900	J/kg/°C	ISO 11357
Thermal Conductivity at 23°C ⁽³⁾	0.47	W/m/K	internal method

Notes:

⁽¹⁾ Typical properties are not to be construed as specification. Tests reported are performed on pressed plates or extruded pipes 18*2 mm, added with 5% of Catalyst Masterbatch LV1 and crosslinked in hot water at 95°C for 6 hours

⁽²⁾ Test performed without Catalyst Masterbatch addition

⁽³⁾ Hot disk method

Additional information

The product must be stored under the following conditions:

- closed and undamaged bags
- ambient temperature not exceeding 30°C
- avoid direct exposure to sunlight and weathering

Product alterations could occur due to extended period of storage; shelf life: 6 months

Padanaplast S.r.l accepts no liability of any kind in case the above mentioned conditions are not fulfilled

Packaging

- 25 kg moisture-resistant bags on 1250 kg pallet
- 125 kg moisture resistant bag in carton box on 500 kg pallet

Processing information

Extruder temperature setting:

Temperature barrel profile	from 130 °C to 210 °C
Head Temperature	190°C / 210 °C
Die Temperature	200°C / 210 °C
Extruder Screw L/D Ratio	25:1 to 40:1
Extruder Screw Compression Ratio	> 2.5:1

Extrusion notes:

Processing

Polidan® S/I 20 pregrafted base must be added with Catalyst Masterbatch LV1 at 5% by weight to promote curing. Other Catalyst Masterbatch grades can be used accordingly to information given in the specific technical literature. Blending must be done just before using (2-3 hours max.). Catalyst Masterbatch doesn't need any predrying if stored in dry conditions in the original closed bags; in case, predrying can be made at 50-60°C for 4-8 hours.

Polidan® S/I 20 grades are sensitive to moisture; open bags must be used within 4 hours. Polidan® S/I 20 grades must be not predried in any case.

Extrusion equipment

- standard extruders for thermoplastics equipped with screw having compression ratio between 2.3 and 2.7 and 25+40 L/D ratio should be used
- don't use screw thermoregulation

Coloring

- Polidan® S/I 20 compounds can be coloured with PE based masterbatches. Padanaplast suggests the predrying of all colour masterbatches prior to use.

Curing

- by immersion in hot water at 60-95°C
- by circulation in hot water inside the pipe at 60-95°C
- by exposure to steam
- by exposure in ambient, crosslinking time depends on ambient temperature and relative humidity
- in all cases curing time depends on the thickness; for pipes 18*2 mm 4-6 hours in immersed hot water at 95°C are generally necessary.

Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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