



## Product description

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

Application: Polidan<sup>®</sup> T/A is used for the production of pipes for domestic hot and cold water supply as well as indoor/outdoor gas distribution and is used both for mono layer and composite pipe design.

## Standard complying

DVGW (W270, KTW-A); DM174; NSF (STD-14 and STD-61)\*

## Availability

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

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

\* at the date of publication of this datasheet

Typical properties <sup>(1)</sup>	nominal value	unit	test method
<b>Physical</b>			
Density at 23°C	0.950	g/cm <sup>3</sup>	ASTM D792
Apparent density <sup>(2)</sup>	550	kg/m <sup>3</sup>	ASTM D1895
Melt Flow Index, 190°C/5.0 kg <sup>(2)</sup>	0.60	g/10'	internal method
Gel Content – Crosslinking level	> 65	%	EN 579
Hardness, Shore D	58	-	ISO 868
<b>Mechanical</b>			
Long Term Hydrostatic Strength MRS	10	MPa	ISO 9080
Tensile Modulus at 23°C	1100	MPa	
Tensile Strength at break at 23°C	> 20	MPa	ISO 527-2
Tensile Elongation at break at 23°C	> 350	%	
<b>Thermal</b>			
Vicat Softening Temperature (10 N)	127	°C	
(15 N)	124	°C	ISO 306
(20 N)	79	°C	
CLTE – Flow at 20°C	1.4 E-4	°C <sup>-1</sup>	ASTM D696
Specific Heat at 23°C	1900	J/kg/°C	ISO 11357
Thermal Conductivity at 23°C <sup>(3)</sup>	0.48	W/m/K	internal method

### Notes:

<sup>(1)</sup> 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 PS/2 and crosslinked in hot water at 95°C for 6 hours

<sup>(2)</sup> Test performed without Catalyst Masterbatch addition

<sup>(3)</sup> 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 1375 kg pallet
- 500 kg octabin box

## 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® T/A pregrafted base must be added with Catalyst Masterbatch PS/2 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® T grades are sensitive to moisture; open bags must be used within 4 hours. Polidan® T 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® T 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.

Neither Padanaplast S.r.l. nor any of its affiliates makes any warranty, express or implied, including merchantability, fitness for use or accepts any liability in connection with this product, related information or its use. The use of this product is not subject to our direct control, therefore, the user alone must finally, under his own responsibility, determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The products are for use by technically skilled persons, with adequate training on how to use chemical products, at their own discretion and risk. The information provided does not relate to the use of this product in combination with any other substance or any other process. In no event Padanaplast S.r.l. will be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information.

Padanaplast S.r.l. makes no representation or warranty, express or implied, that the use of Information will not infringe any patent. This is not a license under any patent or other proprietary right. All trademarks and registered trademarks belong to Finproject S.p.A., A Versalis (Eni) Company.

©Padanaplast S.r.l. 2022. All rights reserved.

[www.padanaplast.com](http://www.padanaplast.com)

[info@padanaplast.com](mailto:info@padanaplast.com)