

**Product description**

Elastomer based compound, moisture curable by addition of a catalyst masterbatch (Sioplas® method). This material complies with RoHS requirements.

Application: W&C insulation and sheathing

Standard complying

EN 50363-1 EI3 EI4 EI6 and EI7; EN 50363-2 EM3, EM4 and EM6; BS 7655 RS5 and GP7; EN 60092/360 EPR; IEC 60502 EPR; VDE 0207/20 3GI3.

Availability

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

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

| Typical properties ⁽¹⁾ | nominal value | unit | test method |
|--|---------------|--------------------|-----------------|
| Physical | | | |
| Density at 23°C | 0.872 | g/cm ³ | ASTM D792 |
| Melt Flow Index, 190°C/2.16 kg ⁽²⁾ | 1.1 | g/10' | internal method |
| Water absorption 24h at 100°C | 0.42 | mg/cm ² | EN 60811 |
| Water absorption 366h at 85°C | 0.66 | | |
| Hardness, Shore A | 70 | - | ISO 868 |
| Hardness, Shore D | 16 | - | |
| Mechanical | | | |
| Tensile Strength at break | 7.7 | MPa | EN 60811 |
| Tensile Elongation at break | 400 | % | |
| Thermal | | | |
| Hot Set Test at 200°C, 20 N/cm ² | | | |
| elongation under load | 40 | % | EN 60811 |
| permanent elongation | 0 | % | |
| Hot Set Test at 250°C, 20 N/cm ² | | | |
| elongation under load | 50 | % | EN 60811 |
| permanent elongation | 0 | % | |
| Bending test (-50°C) | no cracks | - | EN 60811 |
| Hot Pressure test at 150°C K=1 (max deformation) | <50 | % | EN 60811 |
| Ageing | | | |
| Mechanical properties after ageing in Air Oven, 100°C/336 hours | | | |
| change in Tensile Strength | +10 | % | EN 60811 |
| change in Tensile Elongation | -16 | % | |
| Mechanical properties after ageing in Air Oven, 135°C/168 hours | | | |
| change in Tensile Strength | +20 | % | EN 60811 |
| change in Tensile Elongation | +12 | % | |
| Mechanical properties after ageing in Air Bomb, 0.55 MPa, 127°C/40 hours | | | |
| change in Tensile Strength | +12 | % | EN 60811 |
| change in Tensile Elongation | -8 | % | |

| | nominal value | unit | test method |
|--|---------------|---------|-------------|
| Electrical | | | |
| Volume Resistivity at 20°C | 4.1 E+15 | Ω x cm | IEC 60502 |
| Volume Resistivity at 90°C | 1.4 E+14 | Ω x cm | |
| Insulation Resistance Constant at 20°C | 15000 | MΩ x km | IEC 60502 |
| Insulation Resistance Constant at 90°C | 500 | MΩ x km | |
| Dielectric Strength | 28 | kV/mm | ASTM D149 |
| Dielectric constant (1kHz) | 2.3 | - | ASTM D150 |
| Dissipation Factor (1kHz) | 1.1 E-3 | - | ASTM D150 |

Notes:

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

⁽²⁾ Test performed without Catalyst Masterbatch addition

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: 9 months

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

Packaging

- 15 kg moisture-resistant bags on 825 kg pallet

Processing information

Extruder temperature setting:

| | |
|---------------|---------------|
| barrel zone 1 | 120 to 140 °C |
| barrel zone 2 | 120 to 150 °C |
| barrel zone 3 | 130 to 160 °C |
| barrel zone 4 | 140 to 170 °C |
| collar | 140 to 170 °C |
| crosshead | 140 to 170 °C |
| die | 140 to 170 °C |

Extrusion notes:

Processing

Polidiemme® G/450 pregrafted base must be added with Catalyst Masterbatch CT/1 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

Polidiemme® G grades are sensitive to moisture; open bags must be used within 4 hours. Polidiemme® G grades must be not predried in any case.

Extrusion equipment

- standard PVC extruders with single or double flight screw (20 to 30 L/D ratio) are suggested.
- don't use screw thermoregulation
- filter net: normally not necessary
- compression or semi-compression tools are suggested

Coloring

- EVA or PE based color masterbatches added at 0.6-1.0% by weight are suggested; in order to prevent precrosslinking during processing, colour masterbatch should be predried (4-6 hours at 50-60°C)

Curing

- by immersion in hot water at 60-70°C
- by exposure in ambient, crosslinking time depends on ambient temperature and relative humidity
- in all cases curing time depends on insulation thickness; for 0.7-1.2 mm wall thickness 3-6 hours are generally necessary in case of force curing in hot water

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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www.padanaplast.com

info@padanaplast.com