



## Product description

Polyolefin based thermoplastic compound containing a fire retardant system that contributes to give the cable self-extinguish properties without halogenidric acids evolution; furthermore, toxic and corrosive gases emission and smoke generation are particularly reduced. These characteristics make this compound suitable in all applications where the fire behavior of cable materials is one of the main concerns to be considered in establishing a high safety level in public places.

Application: W&C insulation and sheathing

## Standard complying

EN 50363-0 M1/M16 and M9; EN 50363-7 T17; IEC 60502-1 ST8; VDE 0207 HM2, HM 4, HM5 and HJ2; BS 7655 LTS2; IEC 60092 SHF1; UNE 21123-4.

Burning behavior to be assessed accordingly to performances required by specific cable construction

## Availability

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

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

Typical properties <sup>(1)</sup>	nominal value	unit	test method
<b>Physical</b>			
Density at 23°C	1.44	g/cm <sup>3</sup>	ASTM D792
Melt Flow Index, 190°C/21.6 kg	4.5	g/10'	internal method
Water adsorption, 24 hours at 100°C	1.20	mg/cm <sup>2</sup>	EN 60811
Hardness, Shore D	50	-	ISO 868
<b>Mechanical</b>			
Tensile Strength at break	12.5	MPa	EN 60811
Tensile Elongation at break	200	%	
<b>Thermal</b>			
Hot Pressure Test at 100°C/K=1, max. penetration	<50	%	EN 60811
Bending Test at -25°C	Pass	-	EN 60811
Cold impact at -25°C	Pass	-	EN 60811
Heat shock at 150°C	Pass	-	EN 60811
<b>Ageing</b>			
Mechanical properties after ageing in Air Oven, 110°C/168 hours			
change in Tensile Strength	+4	%	EN 60811
change in Tensile Elongation	-13	%	
Mechanical properties after ageing in Air Oven, 121°C/168 hours			
change in Tensile Strength	+9	%	EN 60811
change in Tensile Elongation	-18	%	

	nominal value	unit	test method
<b>Chemical resistance</b>			
1N HCl Solution Immersion Test, 23°C/ 168 hours			
change in Tensile Strength	-17	%	EN 60811
change in Tensile Elongation	-20	%	
1N NaOH Solution Immersion Test, 23°C/ 168 hours			
change in Tensile Strength	-13	%	EN 60811
change in Tensile Elongation	-24	%	
IRM 902 Immersion Test, 100°C/ 168 hours			
change in Tensile Strength	-28	%	EN 60811
change in Tensile Elongation	-8	%	
IRM 903 Immersion Test, 70°C/ 168 hours			
change in Tensile Strength	-6	%	EN 60811
change in Tensile Elongation	-6	%	
Environmental Stress Cracking Resistance			
Condition A, 50°C, 3.00 mm, 10% Igepal	>1000	hours	ASTM D1693
<b>Electrical</b>			
Volume Resistivity at 20°C	1.0 E+15	Ω x cm	IEC 60502
Volume Resistivity at 90°C	2.7 E+14	Ω x cm	
Insulation Resistance Constant at 20°C	4000	MΩ x km	IEC 60502
Insulation Resistance Constant at 90°C	1000	MΩ x km	
<b>Burning properties</b>			
Limiting Oxygen Index	30	%	ASTM D2863
Temperature Index	280	°C	NES 715
Calorific Potential, upper (gross)	17.5	MJ/kg	ISO 1716
Corrosive Gas in Smoke			
conductivity	< 2.5	μS/mm	IEC 60754-2
pH	> 4.3	-	
Halogenidric Acid Emission	< 0.1	%	IEC 60754-1

**Notes:**

<sup>(1)</sup> Typical properties are not to be construed as specification. Tests reported are performed on pressed or extruded specimens.

## 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: 12 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
- 1000 kg carton box

## Processing information

### Extruder temperature setting:

barrel zone 1	140 to 160 °C
barrel zone 2	150 to 170 °C
barrel zone 3	160 to 180 °C
barrel zone 4	170 to 180 °C
collar	170 to 180 °C
crosshead	180 to 190 °C
die	180 to 200 °C

### Extrusion notes:

Extrusion equipment

- standard extruders for thermoplastics equipped with low compression screw (1.2÷1.4 compression ratio and 25 L/D ratio) are suggested
- don't use screw thermoregulation
- filter net: normally not necessary
- compression or semi-compression tools are suggested; if tubing tools must be used, D.D.R. should not exceed 1.5

Coloring

- EVA or PE based color masterbatches added at 1.2-1.5% by weight are suggested.

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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