



TP560

125°C rated, thermoplastic, low-smoke, halogen-free compound for automotive wire insulation

This is a flame-retardant low-smoke zero halogen thermoplastic compound, with improved abrasion resistance, which has been specifically developed for use as insulation to meet the requirements of specifications for Renault, Ford, PSA and Fiat.

Test	Test method	Unit	Typical value
Physical properties and mechanical properties			
Density	BS 2782 Pt. 6 Mtd 620A-D	g/cm ³	1.36
Tensile strength	IEC 60811-1-1	N/mm ²	18
Elongation at break	IEC 60811-1-1	%	400
Scrape abrasion (0.35mm ² wire)	ISO 4649	cycles	>300
Scrape abrasion (1.0mm ² wire)	ISO 4649	cycles	>500
Typical ageing behaviour after 10 days at 150°C			
Tensile strength	IEC 60811-1-2	% Retention	110
Elongation at break	IEC 60811-1-2	% Retention	50
Thermo mechanical properties			
Cold bend test at -40°C	IEC 60811-1-4	-	Pass
Flammability properties			
Flame test	PSA STE 96 347 082 99	-	Pass
Oxygen Index	BS ISO 4589-2	%	25
Temperature index	BS ISO 4589-3	°C	200

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Recommended processing and handling conditions

Extruder

Extruders of L/D ratios (length/diameter) of 15-24 and extruder screws of compression ratio 2:1 are recommended.

Extruder temperature conditions

As a guide the following temperature profile is recommended:-

Zone 1	Zone 2	Zone 3	Zone 4	Head	Die
180	18°C	180	180°C	200°C	200°C

This profile will vary slightly depending on extruder type, head design and output.

Head and tool design

The head and tools should be so designed as to allow streamlined flow without the possibility of stagnation of material.

To obtain the optimum in physical properties in the case of tubing tools, the smallest possible draw down ratio is recommended to avoid internal stresses.

Masterbatches

Addition of approved colour masterbatches, including black, up to a maximum of 1%, has no detrimental effect on the properties or crosslinking capability.

Storage and shelf life

TP560 has an unlimited shelf life. However the following precautions should be observed:-

- Packaging should remain sealed.
- Avoid storage outside and in direct sunlight.

Form and packaging

Form – pellets

Packaging – The following possibilities are available:-

- Moisture resistant sacks containing 25kg.
- Boxes with a moisture resistant heat sealed liner containing approximately 125kg, 500kg or 1000kg.

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