

Compound MX 325

Flexible moisture crosslinkable (Sioplas) high performance flame retardant compound for insulation and jacketing applications for 145 C operating temperature

Compound properties

MX 325 is a flexible high grade, halogenated, non-blooming moisture crosslinkable (Sioplas) compound, offering good mechanical and electrical properties. The excellent extrudability and the high temperature rating makes this compound an ideal choice for the insulation of heat-resistant wires and cables for applications in area's having high temperatures in small compartments.

Features

- Able to withstand temperatures of 280 C during a short period, without detrimental effect
- Safer cable and wire constructions during overload conditions
- Thinner and lighter cable constructions compared to conventional constructions
- Improved routing ability
- Continuous operating temperature from – 50 C to + 145 C (Arrhenius 3000 hrs)
- Good abrasion resistance
- Resistant to ozone, weathering, hydrolysis and heat pressure
- Easy strippable

Specifications

- UL 3266, 3271 and similar

Properties	Test Method	Typical value
<i>Physical properties</i>		
Specific gravity	ISO 1183	1.45 gr/cm ³
Tensile strength	IEC 811-1-1	13 Mpa
Elongation at break	IEC 811-1-1	375%
Heat ageing 7 days 158 C		
. Variation in Tensile strength	IEC 811-1-1	< 15%
. Variation in Elongation at break	IEC 811-1-1	< 20%
Abrasion resistance		good
<i>Electrical properties</i>		
Dielectric constant (50 Hz, 20 C)	ASTM D 150	3,5
Volume resistivity	ASTM D 257	10@14 ohm.cm
Dielectric strength	ASTM D 149	20 kV/mm
<i>Burning properties</i>		
Limited oxygen index	ASTM D 2863	32%
Flammability	UL VW-1	Pass
Hot-set test (200 C, 20 N/cm ²)		
: elongation under load	IEC 60 811	75%
: permanent elongation (set)	IEC 60 811	15%

Compound MX 325

Processing guide		
Extrusion	Mixing	MX 325 should be mixed with CAT-325 in the ratio 95 : 5 parts just prior to processing.
	Drying	Do not dry the MX 325, this to avoid premature crosslinking. It is recommended to pre-dry color masterbatches preferably in a dry-air system at 60 C during 4 hrs, to prevent premature crosslinking/scorching
	Screw	MX 325 can be easily processed with extruders having a L/D ratio of at least 18, preferably 24. A PVC or PE screw with a compression ratio of 2 or 2.5 : 1 is recommended.
	Temperature	A profile of approx. 125 - 140 – 150 – 160 , will give good results.
	Tooling	With both tubing and pressure tooling, good results have been achieved.
	Conductor	Tin coated
Crosslinking (**)	Hot water :	Immersion during 3 hours in hot water of 70 - 80 C.
	Steam :	Exposure to low pressure steam (0.10 - 0.15 bar) during several hours
	Ambient :	Exposure at ambient conditions (typically 20 C, 70% RH) for several days
(**) : It is recommended to measure the hot-set elongation after crosslinking to ensure meeting specifications. The time period may have to be adapted, depending on the humidity, temperature, size of reel and thickness of insulation.		

Storage, packaging and safety & handling		
Storage	Bags	Should be unopened before use. Open bags should be used within 3 - 4 hours after opening.
	Conditions	Store below 30 C and avoid direct exposure to sunlight and weathering
	Shelflife	It is recommended to process the compound within 6 months from the date of production, indicated on the labels
Packaging	Octabins	standard packaging, up to 1250 kg in a PE-bag or a Alu-coated bag
	Bags	Alu-coated bags of 25 kg is optional
Safety		MX 325 and CAT-325 are not classified as dangerous preparations. A safety datasheet is available on request.

Notice : The information given in this datasheet is believed to be accurate and reliable. However, no warranty, express or implied, or guarantee is given as to the suitability, accuracy, reliability or completeness of the information. This information does not hold us liable for damages or penalties resulting from following our suggestions or recommendations. MX325/RG031101