TT 102 UV

TT 102 UV is a high performing natural UV masterbatch designed for use with natural polyethylene jacketing resins and moisture crosslinkable systems used to make wire and cable jackets and insulations where these products will have exposure to direct sunlight and weather conditions

Description

TT102 UV Natural Masterbatch contains a proprietary blend of UV stabilizers to impart UV resistance.

TT 102 UV provides effective long term UV weather resistance.

Applications

A 2.0% concentration of the **TT 102 UV** blended with 98% polyethylene resin or 98% moisture crosslinkable polymer; when extruded with good cable making practices will make cable that will retain >80% original tensile and elongation after 1,000 hours exposure in a Xenon Arc (ASTM G155) or Carbon Arc (ASTM G153) Weather-o- meter.

Specifications

Cables manufactured using TT 102 UV and prime polyethylene resin or moisture cure polymers in accordance with standard industry practices should meet the following industry cable specifications for sunlight resistance:

- UL 2556 720 hours
- CSA C22.2 1,000 hours

Physical Properties [4]	Typical Value [2]	Unit	Test Method [1]
Density [5]	0.957	g / cm^3	ASTM D 1505
Tensile Strength [3]	2151	psi	ASTM D 638
Ultimate Elongation [3]	738	%	ASTM D 638
Tensile Strength [4]	1995	psi	ASTM D 638
Ultimate Elongation [4]	220	%	ASTM D 638
1,000 Hours Weather-o-meter [3]			UL 2556 CSA 22.2
Retained Tensile	88	%	
Retained Elongation	98	%	

(1) Tested in accordance with the latest issue of the designated Test Methods.
(2) Data represents typical values and should not be used for specification work.
(3) 98% LLDPE blended with 2% TT 102 UV
(4) 93.1% EVS Copolymer, 4.9% catalyst masterbatch blended with 2% TT 102 UV
(5) Masterbatch compound property

General Blending Guidelines

TT 102 UV should be dried 4 hours at 150°F if used in moisture cure systems. Gravimetric

feeders are recommended and should be set to feed 2% by weight.

Volumetric feeders can also be used and should be set to feed 1.54% by volume to accommodate the TT 102 UV specific gravity of 1.30.

General Processing Guidelines

Standard extrusion setups and process parameters for polyethylene will apply. Cleanliness and the avoidance of moisture introduction is highly recommended moisture cure extrusion.

Mixing screws are recommended to ensure good dispersion of TT 102 UV. Recommended

Screen pack: 20-60

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