

EGYLINK GF2100 / CT0461

Ambient cure, silane crosslinkable Polyethylene Compound for low voltage power cables with small diameter

EGYLINK GF2100 is a fast curing silane crosslinkable polyethylene compound curable by moisture and possessing excellent extrusion properties at high output rates, the graft compound GF 2100 is mixed with a crosslinking Catalyst Masterbatch CT0461 generally in the ratio 95:5, the combination have excellent thermo-oxidative stability and can cured in ambient conditions. GF0461 has been specially developed for insulation of low voltage power cables with small diameter

Specifications EGYLINK GF2100/CT0461 in combination meets the applicable requirements below. IEC60502-1, BS 7655 section 1.3 (GP8) , HD 603 S1

The standards refer to above is a selection and not complete coverage of all applicable standards, contact EGYPLAST representative for additional information.

Property	Test Method	Unit	Typical Value
Physical and mechanical Properties			
Density	ASTM D 792	g/cm ³	0.93
Melt flow index (2.16 kg at 190°C)	ASTM D 1238	g/10 max.	1.0
Tensile strength	BS EN 60811	N/mm ²	16
Elongation at break	BS EN 60811	%	300
Ageing behavior after 7 days at 135°C			
Tensile strength	BS EN 60811	% Variation	≤ 20
Elongation at break	BS EN 60811	% Variation	≤ 20
Thermo mechanical Properties			
Cold bend at -70°C	IEC EN 60811	-	Pass
Curing by hot set test (Forced cure in water at 90°C)			
15 minute ,200°C,0.2 MPa			
Elongation under Load	IEC EN 60811	%	125
Permanent Elongation after cooling	IEC EN 60811	%	5
Electrical Properties			
Volume resistivity at 20°C	ASTM D 257	Ω.cm	10 ¹⁶
Dielectric strength at 20°C	ASTM D 150	Kv/mm	21
Dielectric Constant	ASTM D 149		2.26
Dissipation Factor	ASTM D 149		2.88X10 ⁻⁴

Processing

EGYLINK GF2100 pre-grafted base must be added with Catalyst CT0461 to promote curing. Catalyst dosage is 5% by weight and blending must be done just before using (2-3 hours). Catalyst doesn't need any pre-drying if stored in dry conditions in the original closed bags; in case, pre-drying can be made at 50-60 °C for 4-8 hours

Extrusion equipment

EGYLINK GF2100/CT0461 is suitable for most equipment for PVC/PE extrusion

L/D Ratio >20 & Compression ratio 2 – 3: 1 and Chromium plated extrusion moulds

As a guide the following temperature profile is recommended (this profile will vary slightly depend on extruder type, head design and output)

Barrel	Flange	Head	Die	Screw
150-190 °C	200 °C	210 °C	220 °C	70-80 °C

Crosslinking

This product can be crosslinked in ambient temperature, by immersion in hot water or exposure to low pressure steam at 90-95°C, the crosslinking time period may be varied due to humidity, temperature , thickness of insulation and reel size

Colour Masterbatch

EGYPLAST designed special type of masterbatch for XLPE application that not alter physical, mechanical and electrical properties, contact EGYPLAST representative for more information

Storage & shelf life

EGYLINK GF2100 has shelf life time 6 months from manufacturing date, the storage in cool dry conditions will maximise the shelf life, other precautions are

- Packing should remain sealed
- Avoid temperature more than 25°C
- Avoid storage outside and in direct sun light
- Use within 4 hours of opening packing

Packing

- Moisture resistant sacks containing 25 kg
- Boxes with a moisture resistant heat sealed liner containing approximately 600 kg

Remark: - The description and figures contained herein are provided to customers as general information for the purposes the product is intended for. These reflect **EGYPLAST** knowledge at the time of publication. By the information contained herein **EGYPLAST** won't release any warranty and/or give any suggestion on the use of the product, or grant any franchise on existing patents. The end-user, transformer shall always check the specific suitability of the product for the purposes it is intended for and its compatibility with process specifications. This document does not form part of any contract with customer