

**Product Information:**

KKX-MXLPE/CAT-XL is a silane crosslinkable medium density polyethylene natural compound system designed for insulation of low voltage energy cables.

KKX-MXLPE is a medium density polyethylene, copolymerised with vinyl silane. CAT-XL is an ambient crosslinking catalyst masterbatch specially designed to be used. The system is highly active and crosslinks quickly at in sauna or in hot water.

Cable insulation with a proper mixture of KKX-MXLPE (95 parts) and CAT-XL (5 parts) exhibits excellent thermo-oxidative stability. The combination is suitable for both copper and aluminum conductors.

Crosslinking by immersion in 90°C hot water 2-6 hours; by exposure to low pressure water steam, 12-15 hours. It cures after 72 hours at room conditions.

KKX-MXLPE / CAT-XL in combination meets the applicable requirements as below when processed using sound extrusion and testing procedure:

IEC 60092/360; IEC 60502 XLPE

VDE 0276 2X11; HD 604 2X11

BS 7655 GP8; HD 626 S1, TX3, TX5 and TX8

NF C33-209

**Product Data:**

Property	Test Method	Unit	Value
<b>Physical Properties</b>			
Melt Flow Rate (190°C- 5 kg)	ASTM D 1238-13	g/10 min	0,5
Density (23°C)	ASTM D-792	gr/cm <sup>3</sup>	0,94
Hardness	ISO 868	Shore D	55
Water absorption 24h at 100°C	EN 60811	mg/cm <sup>2</sup>	<0.50
Water absorption 336h at 85°C	EN 60811	mg/cm <sup>2</sup>	<0.50
<b>Mechanical Properties</b>			
Tensile Strength	ISO 527	N/mm <sup>2</sup>	20
Elongation at Break	ISO 527	%	550
Heat Ageing (135°C, 168h)	IEC 60811-401		
Δ Strength		%	+5
Δ Elongation		%	+20
Heat Ageing (150°C, 240h)	IEC 60811-401		
Δ Strength		%	+6
Δ Elongation		%	-5
Hot Set Test (200°C,0.2 MPa)			
Elongation Under Load	IEC 60811-2-1	%	<50
Permanent Elongation After Cooling	IEC 60811-2-1	%	<0
Bending test in Air Oven 150°C 240h on untinned copper	IEC 60811	-	no cracks
<b>Electrical Properties</b>			
Dielectric constant (1kHz)	ASTM D150	-	2.4
Volume Resistivity at 90°C	IEC 60502	Ω x cm	1.4 E+15
Dielectric Strength	ASTM D149	kV/mm	32

**Extrusion Temperatures:** 180°C – 185°C – 195°C – 205°C – 215°C – 220°C – 225°C– 230°C

(40 mesh double sieve and shalom tube should be used.)

**Packaging:** KKX-MXLPE is packaged in 1200 kg packages and 20 kg aluminum bags.

CAT-XL is packaged as aluminum multi-layer bags with a net content of 1 kg.

**Storage&Handling:**

KKX-MXLPE should be stored in a manner that avoids direct exposure to sunlight and heat (T<30°C). This compound should be used within 6 months after its production date.

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