

**Product Information:**

KKX-423/CAT-XL silane crosslinkable natural compound system designed for insulation of low voltage energy cables. KKK-423 / CAT-XL is designed for Insulation of low voltage energy cables, range up to 6 kV.

KKX-423 is a low 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.

The proper mixture could be;

- 95% for KKK-423 (base polymer), 5% for CAT-XL (catalyst)
- 93% for KKK-423 (base polymer), 7% for CAT-XLB (black catalyst)

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.

Properties of this compound comply with the requirements of,

ASTM D 1248 Type I, Class A, Category 4

HD 603 S1

HD 604 S1, NEMA WC 70, IEC 60502-1

UL94

**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	0,75
Density (23°C)	ASTM D-792	gr/cm <sup>3</sup>	0,935
Hardness	ISO 868	Shore D	54
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
Shrinkage Test	EN 60811-502	%	<2
<b>Mechanical Properties</b>			
Tensile Strength	ISO 527	N/mm <sup>2</sup>	18
Elongation at Break	ISO 527	%	450
Heat Ageing (135 °C, 168h)	IEC 60811-401		
Δ Strength		%	≤±30
Δ Elongation		%	≤±30
Heat Ageing (150°C, 168h)	EN 60811-401		
Δ Strength		%	≤-30
Δ Elongation		%	≤-30
Hot Set Test (200 °C, 0,2 Mpa)			
Elongation under load	IEC 60811	%	<50
Permanent elongation after cooling	IEC 60811	%	<5
<b>Chemical Properties</b>			
pH	IEC 60754-2	-	>4.3
Conductivity	IEC 60754-2	μS/mm	<10
Smoke Density	EN-61034	% transmittance	>80
Volume Resistivity	IEC 62631-3-1	PΩ.cm	10
Dielectric Strength	IEC 60243	Kv/mm	22

**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-423 is packaged as 20 kg in aluminum bags, 1200 kg pallets.

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

**Storage&Handling:** KKK-423 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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