

**Product Information:**

KKX-451 is a natural UV stabilized , halogen free moisture-induced crosslinkable polyolefin compound that is designed for use photovoltaic cables.

The combination of KKK-451 base resin, and CAT-SI catalyst, provides a highly scorch retardant compound system with excellent thermal stability and good flame retardant properties.

The proper mixture should be 96% for KKK-451 and 4% for CAT-SI.

Crosslinking by immersion in 90°C hot water 6-8 hours; by exposure to low pressure water steam, 12-15 hours.

Properties of this compound comply with the requirements of,

EN 50363-5 E15

EN 50290-2-26

EN 50618

TÜV 2 PFG 1169/08.2007

**Product Data:**

Property	Test Method	Unit	Value
<b>Physical Properties</b>			
Melt Flow Rate (190°C- 2,16 kg)	ASTM D 1238	g/10 min	0,25
Density (23°C)	ASTM D-792	gr/cm <sup>3</sup>	1,19
Hardness	ISO 868	Shore D	45
<b>Mechanical Properties</b>			
Tensile Strength	IEC 60811-501	N/mm <sup>2</sup>	11
Elongation at Break	IEC 60811-501	%	270
Hot Set Test (200 °C, 0,2 Mpa)			
Elongation under load	IEC 60811-507	%	<50
Permanent elongation after cooling	IEC 60811-507	%	<10
Hot Set Test (250 °C, 0,2 Mpa)			
Elongation under load	IEC 60811-507	%	<100
Permanent elongation after cooling	IEC 60811-507	%	<10
Pressure Test at High Temperature (140 °C, 240 h)	IEC 60811-508	-	Pass
<b>Chemical Properties</b>			
pH	IEC 60754-2	-	>4.3
Conductivity	IEC 60754-2	µS/mm	<10
LOI	ISO 4589	%	32
Smoke Density	EN-61034	% transmittance	>80
Volume Resistivity	EC 60093	PΩ.cm	10
Dielectric Strength	IEC 60243	Kv/mm	>20

**Extrusion Temperatures:**

135°C – 140°C – 145 °C – 150°C – 155°C– 165°C – 170°C  
(40 mesh double sieve and shalom tube should be used.)

**Packaging:**

KKX-451 is packaged in 1250 kg in octabin or 1200 in 20 kg aluminum package.

CAT-SI is packaged as 1 kg in alumina bags..

**Storage&Handling:**

KKX-451 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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