

Product Information:

SX-FR683 is a thermoplastic, halogen free flame retardant natural jacketing compound with high mechanical strength, durability, UV resistance and excellent extrusion properties. The material has excellent crack resistance, and is suitable for the outer sheath material of power cables, HV energy cables, EHV energy cables, communication cables and optical cables.

The properties of this compound comply with the requirements of,

VDE 0207 Teil 24 (HM2, HM4 & HM5)
BS 7655 LTS1-4, HD 620 S2 DMZ 3-5
IEC 60502 Part 1; Type ST3; ST7
HD 632 S1; ST3; ST7, HD 620 S1 DMZ2

HD 603 S1 DMO 1, EN 50363-8 TM7
EN 50290-2-27, BS 7655 LTS1-4
IEC 60708, EN 50290-2-23
EN 50407, DIN VDE 0207, 2Y11

Product Data:

Property	Test Method	Unit	Value
Physical Properties			
Melt Flow Rate (190°C-2,16 kg)	ASTM D 1238	g/10 min	0,5
Density (23°C)	ASTM D-792	g/cm ³	1,17
Hardness	ISO 868	Shore D	50
Mechanical Properties			
Tensile Strength	ISO 527	MPa	15
Elongation at Break	ISO 527	%	550
Heat Ageing (100 °C, 240 h)	IEC 60811		
Δ Strength		%	±25
Δ Elongation		%	±25
Tear Strength	ASTM D 1938	N/mm	20
Cold Flex	ISO 458-2	°C	-40±2
Cold Bend (-40°C ±2 °C)	IEC 60811-504	-	No Cracks
Cold Impact (-40°C ±2 °C)	IEC 60811-506	-	Pass
Chemical Properties			
Environmental Stress Crack Resistance (50°C)	IEC 60811-406	h	≥ 500
Halogen Content	EN 60754-1	%	<0,5 Max.
pH	IEC 60754-2	-	>4.3
Conductivity	IEC 60754-2	μS/mm	<10
Water Absorption (70°C, 168 h)	IEC 60811-402	mg/cm ²	<1
LOI	ISO 4589	%	28
Smoke Density	EN-61034	% transmittance	>80
Other Properties			
Dielectric Strength	IEC 60243	MV/m	≥18
Oil IRM 902 oil (70 °C, 4 h)	IEC 60811-404		
Δ Strength		%	10
Δ Elongation		%	9

Processing:

Extrusion Temperatures: 120°C–130°C–140°C–150°C–160°C

Packaging:

It is packaged as 1000 kg in octabin.

Storage&Handling:

SX-FR683 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. After this time it's necessary to dry the material before extrusion.