VESTAKEEP® Film 0FH81

Polyetheretherketone

Evonik Industries AG

Message:

VESTAKEEP® film 0FH81 is a cast film based on 100% unreinforced polyether ether ketone (PEEK). The film is amorphous. VESTAKEEP® film 0FH81 is designed for thermoforming thin walled parts from the melt. The material features the lowest extrusion related internal stresses possible. Applications of the film are cutting edge precision parts made by thermoforming, e.g.: housings or battery capsules electrical insulation heat and chemical protection Composite technology

The low internal stresses of the film allow for walls of lowest thickness tolerance.

General Information			
Features	Amorphous		
Uses	Battery Cases		
	Electronic Insulation		
	Housings		
	Thin-walled Parts		
Forms	Film		
Processing Method	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.26	g/cm³	ISO 1183
Films	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-3/100
Yield	60.0	MPa	
	120	MPa	
Tensile Elongation (Break)	> 150	%	ISO 527-3/100
Thermal	Nominal Value	Unit	
Glass Transition Temperature ¹	150	°C	
Crystallization Point - Cold	> 165	°C	
Surface Resistance	1.0E+14	ohms	IEC 60093
Volume Resistance	1.0E+14	ohms	IEC 60093
Breakdown Voltage			EN 60243-1
75.0 µm	13500	V	
125.0 µm	17500	V	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms·cm	IEC 60093
Electric Strength			IEC 60243-1
0.0750 mm	190	kV/mm	

50 Hz 2.80 1 kHz 2.90 1 MHz 2.80 Dissipation Factor IEI 1 kHz 3.0E-3 1 MHz 5.0E-3				
50 Hz 2.80 1 kHz 2.90 1 MHz 2.80 Dissipation Factor IE 1 kHz 3.0E-3 1 MHz 5.0E-3 Comparative Tracking Index IE 200 V Solution A ² 175 V		kV/mm	140	0.125 mm
1 kHz 2.90 1 MHz 2.80 Dissipation Factor IE 1 kHz 3.0E-3 1 MHz 5.0E-3 Comparative Tracking Index IE 200 V Solution A ² 175 V	IEC 60250			Relative Permittivity
1 MHz 2.80 Dissipation Factor IE 1 kHz 3.0E-3 1 MHz 5.0E-3 Comparative Tracking Index IE 200 V Solution A ² 175 V			2.80	50 Hz
Dissipation Factor IE 1 kHz 3.0E-3 1 1 MHz 5.0E-3 1 Comparative Tracking Index IE IE 200 V Solution A ² 175 V			2.90	1 kHz
1 kHz 3.0E-3 1 MHz 5.0E-3 Comparative Tracking Index IE 200 V Solution A ² 175 V NOTE IE IE			2.80	1 MHz
1 MHz 5.0E-3 Comparative Tracking Index IE 200 V Solution A ² 175 V NOTE V V	IEC 60250			Dissipation Factor
Comparative Tracking Index IE 200 V Solution A ² 175 V NOTE V V			3.0E-3	1 kHz
200 V Solution A ² 175 V NOTE V V			5.0E-3	1 MHz
Solution A 2175VNOTE	IEC 60112			Comparative Tracking Index
NOTE		V	200	
		V	175	Solution A ²
1. 2nd Heating				NOTE
			2nd Heating	1.
2. 100 drops value			100 drops value	2.

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

