

Product Information

VESTAKEEP® Film 0FH81

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.

Important notice: Amorphous PEEK film undergoes crystallization at above its glass transitions temperature around 150°C. This should be taken into account upon processing as well as in final applications. The crystallization can only be reversed by heating to the melt followed by quenching.

Availability:

Thicknesses ranging from 50µm up to 125µm are available.

Standard thicknesses are 50, 75 and 125µm. The standard width is 300mm. Please inquire for further thicknesses or widths.

Films are supplied in roll form with 3'' or 6'' core. Customized widths or cut-to-size sheets can be supplied upon request.

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VESTAKEEP® film OFH81 – physical and mechanical properties

Property	Test method	Unit	VESTAKEEP OFH81 75µm
Specific Gravity*) 23°C	ISO 1183	g/cm ³	1,26
Glass transition temperature T _g	DSC 2 nd heating	°C	~150°C
Cold crystallization onset		°C	>165°C
Tensile test 100mm/min	ISO 527-3		
Tensile Strength		MPa	120
Yield Strength		MPa	60
Strain at break			>150%

VESTAKEEP® film – Dielectric strength comparison

	Unit	25µm	50	75	125	190
VESTAKEEP OFH81 (amorphous)						
Breakdown Voltage	IEC 60243-1	kV		13,5	17,5	
Dielectric Strength		kV/mm		190	140	
VESTAKEEP OFH80 (crystalline)						
Breakdown Voltage	IEC 60243-1	kV	6,3	10	13	16
Dielectric Strength		kV/mm	250	190	170	124
						20
						103

VESTAKEEP® – Bulk Electrical Properties

Property	Test method	Unit	VESTAKEEP resin
Relative permittivity	50 Hz	IEC 60250	2,8
	1 kHz		2,9
	1 MHz		2,8
Dissipation factor	1 kHz	IEC 60250	0,003
	1 MHz		0,005
Comparative tracking index	CTI	IEC 60112	200
Test solution A	100 drops value		175
Volume resistance	IEC 60093	Ohm	10 ¹⁴
Volume resistivity	IEC 60093	Ohm · cm	10 ¹⁵
Surface resistance R _{oA}	IEC 60093	Ohm	10 ¹⁴
Spec. surface resistance	IEC 60093	Ohm	10 ¹⁵

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