Kalix® 9945 HFFR

High Performance Polyamide

Solvay Specialty Polymers

Message:

Kalix® 9945 HFFR is a 45% glass-fiber reinforced, halogen-free flame retardant High Performance Polyamide. It is hot-water moldable and intended for use in components requiring superior mechanical properties, excellent surface quality and excellent flammability rating.
Black: Kalix® 9945 BK000 HFFR

General Information	
UL YellowCard	E95746-101015538
Filler / Reinforcement	Glass fiber reinforced material, 45% filler by weight
Features	Good dimensional stability Low warpage Rigidity, high High strength Impact resistance, good Electroplateable Sprayable Fast molding cycle High liquidity Hot water formability Excellent appearance
Uses	Thin wall parts Electrical/Electronic Applications Electrical components Mobile phone
RoHS Compliance	Contact manufacturer
Appearance	Black Available colors Natural color
Forms	Particle
Processing Method	Water temperature mold injection molding Injection molding
Part Marking Code (ISO 11469)	>PAMXD6/66-GF45

Physical	Nominal Value	Unit	Test Method
Density	1.58	g/cm³	ISO 1183
Molding Shrinkage [1]			Internal method

Vertical flow direction	0.28	%	Internal method
Flow direction	0.12	%	Internal method

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	17000	MPa	ISO 527-2
Tensile Stress (Yield)	190	MPa	ISO 527-2
Tensile Strain (Break)	1.9	%	ISO 527-2
Flexural Modulus	15000	MPa	ISO 178
Flexural Stress (3.5% Strain)	280	MPa	ISO 178
Flexural Strain at Break	2.5	%	ISO 178

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	12	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength	45	kJ/m^2	ISO 180

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	257	°C	ISO 75-2/B

Electrical	Nominal Value		Test Method
Dielectric Constant [2] (2.40 GHz)	4.20		ASTM D2520
Dissipation Factor [3] (2.40 GHz)	0.010		ASTM D2520

Flammability	Nominal Value		Test Method
Flame Rating (mm, colored)	V-0		UL 94

Additional Information

Typical values shown tested on Dry as Molded samples.Standard Packaging and Labeling:
Kalix 9945 resin is packaged in foil lined, multiwall paper bags containing 25 kg (55 pounds) of material. Individual packages will be plainly marked with the product number, the color, the lot number, and the net weight.

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	4.0 - 12	hr
Suggested Max Moisture	< 0.090	%
Rear Temperature	265 - 270	°C
Front Temperature	280 - 290	°C
Processing (Melt) Temp	280 - 290	°C
Mold Temperature	80.0 - 120	°C

Injection instructions

Storage:
Kalix® compounds are shipped in moisture-resistant packages at moisture levels according to specifications. Sealed, undamaged bags should be preferably stored in a dry room at a maximum temperature of 50°C (122°F) and should be protected from possible damage. If only a portion of a package is used, the remaining material should be transferred into a sealable container. It is recommended that Kalix® resins be dried prior to molding following the recommendations found in this datasheet and/or in the Kalix® processing guide.
Drying:
Kalix 9945 is supplied in sealed bags. It should be dried before molding because excessive moisture content will result in reduced mechanical properties and processing issues, such as excessive nozzle drooling, foaming and splay visible on the molded parts.
Polyamides oxidize in the presence of oxygen at high temperatures. Therefore drying temperatures above 80°C should be avoided, particularly for light colors or color-controlled parts.
Injection Molding:
Set injection pressure to give rapid injection. Adjust holding pressure to one-half injection pressure. Set hold time to maximize part weight. Transfer from injection to hold pressure at the screw position just before the part is completely filled.

NOTE

1.	Solvay test method. The shrinkage rate will change according to the design and processing conditions of components. Please contact Solvay's technical representative for more information.
2.	Method B
3.	Method B

Recommended distributors for this material

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

WECHAT