Kalix® 2955

High Performance Polyamide

Solvay Specialty Polymers

Message:

Kalix® 2955 is a bio-sourced, polyamid-based compound with 55% by weight glass fiber reinforcement. This material is specifically formulated for high strength and stiffness applications where good impact resistance and excellent dimensional stability after molding are required. The formulation also addresses warpage issues associated with the anisotropic shrinkage of glass fiber reinforced materials so that close tolerance molding is more easily achieved. Its low viscosity and excellent flow properties make the material ideal for filling parts with thin-walled sections such as those encountered in the mobile electronics industry.
Black: Kalix® 2955 BK 000
White: Kalix® 2955 WH 000

General Information	
Filler / Reinforcement	Glass fiber reinforced material, 55% 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	White Black
Forms	Particle
Processing Method	Water temperature mold injection molding Injection molding
Part Marking Code (ISO 11469)	>PA610-GF55

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.58		

Flexural Strain at Break	3.0	%	ISO 178
Molding Shrinkage [1]			Internal method
Vertical flow direction	0.30	%	Internal method
Flow direction	0.090	%	Internal method
Water Absorption (23°C, 24 hr)	0.090	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	17800	MPa	ISO 527-2
Tensile Stress	222	MPa	ISO 527-2
Tensile Strain (Break)	2.5	%	ISO 527-2
Flexural Modulus	15800	MPa	ISO 178
Flexural Stress	330	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	22	kJ/m^2	ISO 179
Charpy Unnotched Impact Strength	100	kJ/m^2	ISO 179
Notched Izod Impact	20	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength	90	kJ/m^2	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, not annealed	222	°C	ISO 75-2/B
1.8 MPa, not annealed	214	°C	ISO 75-2/A
Glass Transition Temperature	55.0	°C	ASTM D3418
Electrical	**Nominal Value**		**Test Method**
Dielectric Constant [2] (1.00 GHz)	4.13		ASTM D2520
Dissipation Factor [3] (2.40 GHz)	0.011		ASTM D2520
Flammability	**Nominal Value**		**Test Method**
Flame Rating (> mm, black, white)	HB		UL 94
Additional Information			
Typical values shown tested on Dry as Molded samples.Standard Packaging and Labeling: Kalix® 2955 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 - 300	°C	
Middle Temperature	280 - 330	°C	
Front Temperature	280 - 330	°C	
Processing (Melt) Temp	280 - 330	°C	
Mold Temperature	50.0 - 130	°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® 2955 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 (176°F) 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.
For light colors use lower melt temperature if possible. If operating in the 330°C melt temperature range, keep residence times below 5 minutes.
Actual mold temperatures of 80°C or above are recommended to improve flow and part surface finish. The use of mold temperatures below 80°C is safe for mechanical properties but may result in higher necessary injection pressure and inferior surface finish.

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