

Kalix® 7650

high performance polyamide

Kalix® 7650 is a high-performance polyamide based material for electronic devices with high flow and low warpage.

- Black: Kalix® 7650 BK 000

General

Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
Filler / Reinforcement	• Glass Fiber	
Features	• Good Surface Finish • High Flow	• High Stiffness • Low Warpage
Uses	• Cell Phones • Electrical Parts	• Electrical/Electronic Applications • Thin-walled Parts
RoHS Compliance	• Contact Manufacturer	
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	
Part Marking Code (ISO 11469)	• >PPA-GF50<	

Physical

	Typical Value	Unit	Test method
Density	1.60	g/cm ³	ISO 1183
Molding Shrinkage ¹			Internal Method
Across Flow	0.24	%	
Flow	0.18	%	
Ash Content	47 to 53	%	ISO 3451

Mechanical

	Typical Value	Unit	Test method
Tensile Modulus	16500	MPa	ISO 527-2
Tensile Stress	145	MPa	ISO 527-2
Tensile Strain (Break)	1.0	%	ISO 527-2
Flexural Modulus	14100	MPa	ISO 178
Flexural Stress	235	MPa	ISO 178
Flexural Strain at Break	1.8	%	ISO 178

Impact

	Typical Value	Unit	Test method
Notched Izod Impact Strength	3.5	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength	31	kJ/m ²	ISO 180



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Thermal

Typical Value Unit

Coefficient of Linear Thermal Expansion

Across Flow : 0 to 90°C

1.8E-5 cm/cm/°C

Flow : 0 to 90°C

1.8E-5 cm/cm/°C

Additional Information

- Typical values shown tested on Dry as Molded samples.
- Standard Packaging and Labeling: Kalix® 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

Typical Value Unit

Drying Temperature

120 °C

Drying Time

4.0 to 12 hr

Suggested Max Moisture

< 0.060 %

Rear Temperature

320 to 335 °C

Front Temperature

330 to 340 °C

Processing (Melt) Temp

330 to 345 °C

Mold Temperature

100 to 120 °C

Injection Notes

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® compounds are 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 120°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.

Notes

Typical properties: these are not to be construed as specifications.

¹ Solvay Test Method. Shrink rates can vary with part design and processing conditions. Please consult a Solvay Technical Representative for more information.

