Ultramid® BG50XFI

Polyamide 6

BASF Corporation

Message:

Ultramid BG50XFI is an impact modified, injection molding type 6 nylon graft copolymer with superior impact resistance and flow especially for thinner walled parts and long flow lengths. It is also available in natural and pigmented versions. Copolymerization results in varying levels of toughness and flexibility combined with excellent thermal and chemical properties. Exhibits higher impact performance than that of conventional nylon homopolymers while maintaining good strength, chemical resistance and stiffness.
Applications
Ultramid BG50XFI is generally recommended for applications such as cellular phone housings, handheld device, caps, furniture rails, covers, mower decks and tool.

General Information	
UL YellowCard	E36632-231171
Additive	Impact Modifier
Features	Copolymer Good Chemical Resistance Good Flow Good Stiffness Good Strength High Impact Resistance Impact Modified Oil Resistant
Uses	Caps Cell Phones Furniture Housings Power/Other Tools Protective Coverings Thin-walled Parts
Agency Ratings	EC 1907/2006 (REACH)
RoHS Compliance	RoHS Compliant
Appearance	Colors Available Natural Color
Forms	Pellets
Processing Method	Injection Molding

Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.10	--	g/cm³	ASTM D792, ISO 1183
Water Absorption				

Saturation	8.6	--	%	ASTM D570
Saturation, 23°C	8.6	--	%	ISO 62
Equilibrium, 50% RH	2.4	--	%	ASTM D570
Equilibrium, 23°C, 50% RH	2.4	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	2500	755	MPa	ISO 527-2
Tensile Strength (Yield, 23°C)	70.0	36.0	MPa	ASTM D638, ISO 527-2
Tensile Elongation				
Yield, 23°C	4.0	28	%	ASTM D638, ISO 527-2
Break, 23°C	70	> 100	%	ASTM D638
Nominal Tensile Strain at Break (23°C)	> 50	> 50	%	ISO 527-2
Flexural Modulus				
23°C	2390	--	MPa	ASTM D790
23°C	2350	670	MPa	ISO 178
Flexural Strength				
23°C	95.0	--	MPa	ASTM D790
23°C	85.0	20.0	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Notched Izod Impact				
23°C	150	--	J/m	ASTM D256
23°C	15	--	kJ/m^2	ISO 180
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				
1.8 MPa, Unannealed	60.0	--	°C	ASTM D648
1.8 MPa, Unannealed	57.0	--	°C	ISO 75-2/A
Peak Melting Temperature	220	--	°C	ASTM D3418, ISO 3146
RTI Elec				UL 746
0.750 mm	65.0	--	°C	
1.50 mm	65.0	--	°C	
3.00 mm	65.0	--	°C	
RTI Imp				UL 746
0.750 mm	65.0	--	°C	
1.50 mm	65.0	--	°C	
3.00 mm	65.0	--	°C	
RTI Str				UL 746
0.750 mm	65.0	--	°C	
1.50 mm	65.0	--	°C	
3.00 mm	65.0	--	°C	
Flammability	**Dry**	**Conditioned**		**Test Method**

Flame Rating				UL 94
0.750 mm	HB	--		
1.50 mm	HB	--		
3.00 mm	HB	--		
Additional Information	Dry	Conditioned	Unit	Test Method
Drop Weight Impact Strength (23°C)	201	--	J	Internal Method
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	2.0 to 4.0		hr	
Suggested Max Moisture	0.15		%	
Processing (Melt) Temp	240 to 285		°C	
Mold Temperature	65.0 to 80.0		°C	
Injection Pressure	3.50 to 12.5		MPa	
Injection Rate	Fast			

Recommended distributors for this material

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