



Ultramid® T KR 4357 G6

BASF Corporation - Polyamide 6/6T Copolymer

Monday, November 4, 2019

General Information

Product Description

Ultramid T KR 4357 is a 30% glass fiber reinforced, impact-modified, injection-molding PA6/6T grade. High toughness, stiffness and strength, low water absorption. High melting point (295 C). After the material has been conditioned, its mechanical properties remain stable up to 60 C.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Impact Modifier		
Features	• Copolymer • Good Toughness	• High Stiffness • High Strength	• Impact Modified • Low to No Water Absorption
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• GM QK 001303 Type A Color: 564 Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm ³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F	4.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	0.80	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.35E+6	1.31E+6	psi	ISO 527-2
Tensile Stress				ISO 527-2
Break, -40°F	36100	34100	psi	
Break, 73°F	23900	21000	psi	
Tensile Strain				ISO 527-2
Break, -40°F	3.6	2.9	%	
Break, 73°F	3.5	3.5	%	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	4.8	--	ft·lb/in ²	
73°F	9.0	10	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	43	--	ft·lb/in ²	
73°F	45	48	ft·lb/in ²	
Notched Izod Impact Strength				ISO 180
73°F	11	--	ft·lb/in ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/A
264 psi, Unannealed	464	--	°F	

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature (DSC)	563	--	°F	ISO 3146
CLTE - Flow	1.4E-5	--	in/in/°F	
CLTE - Transverse	3.1E-5	--	in/in/°F	
RTI Elec				UL 746
0.030 in	284	--	°F	
0.06 in	284	--	°F	
0.12 in	284	--	°F	
RTI Imp				UL 746
0.030 in	212	--	°F	
0.06 in	230	--	°F	
0.12 in	239	--	°F	
RTI Str				UL 746
0.030 in	248	--	°F	
0.06 in	284	--	°F	
0.12 in	284	--	°F	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	> 1.0E+15	1.0E+15	ohms·cm	IEC 60093
Dielectric Constant (1 MHz)	4.30	4.50		IEC 60250
Dissipation Factor (1 MHz)	0.030	0.040		IEC 60250
Comparative Tracking Index	600	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.030 in	HB	--		
0.06 in	HB	--		
0.12 in	HB	--		

Processing Information

Injection	Dry	Unit
Drying Temperature	230	°F
Drying Time	8.0	hr
Suggested Max Moisture	0.15	%
Processing (Melt) Temp	590 to 626	°F
Mold Temperature	176 to 248	°F

Notes

¹ Typical properties: these are not to be construed as specifications.