



Ultramid® T KR 4355 G5

BASF Corporation - Polyamide 6/6T Copolymer

Monday, November 4, 2019

General Information

Product Description

Ultramid T KR 4355 G5 is a 25% glass fiber reinforced injection molding PA6/6T grade featuring high toughness, stiffness, and strength, low water absorption, and high melting point (295 C). After the material has been conditioned, its mechanical properties remain stable up to 65 C.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight		
Features	• Copolymer • Good Toughness	• High Stiffness • High Strength	• Low to No Water Absorption
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• FORD WSK-M4D872-A	• GM QK 001352 Type A Color: 564 Black	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm ³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F	5.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	1.3	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.31E+6	1.31E+6	psi	ISO 527-2
Tensile Stress				ISO 527-2
Break, -40°F	31000	29400	psi	
Break, 73°F	26800	24700	psi	
Break, 176°F	16100	--	psi	
Tensile Strain				ISO 527-2
Break, -40°F	2.8	2.4	%	
Break, 73°F	3.0	3.0	%	
Break, 176°F	3.0	--	%	
Flexural Modulus (73°F)	1.06E+6	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	4.0	--	ft·lb/in ²	
73°F	5.2	--	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	29	--	ft·lb/in ²	
73°F	38	--	ft·lb/in ²	

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 264 psi, Unannealed	473	--	°F	ISO 75-2/A
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	239	--	°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+14	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
0.017 in	HB	--		
0.030 in	HB	--		
0.06 in	HB	--		
0.12 in	HB	--		

Notes

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