Ultramid® T 4381 LDS SW23271

Polyamide 6/6T Copolymer

BASF Corporation

Message:

Glass fibre and mineral reinforced partially aromatic polyamide for injection moulding. Good toughness, stiffness and strength, low water absorption, high melting point (295 °C). The product is especially tailored for laser direct structuring (LDS). The structured areas can be metallized selectively.
The compound is intended specifically for the use in the process of manufacturing conducting path designs according to the German application of the patent 101 32 092 of LPKF Laser & Electronics AG (Osteriede 7 - 30827 Garbsen - Germany). The use of this process asserts a claim for compensation. After purchasing a LPKF laser system the claim is satisfied. Please contact directly LPKF Laser & Electronics AG (http://www.LPKF.de).

General Information	
Filler / Reinforcement	Glass Fiber,10% Filler by Weight Mineral,25% Filler by Weight
Features	Aromatic Copolymer Good Stiffness Good Strength Good Toughness Low to No Water Absorption
Uses	Laser Direct Structuring
Agency Ratings	EC 1907/2006 (REACH)
RoHS Compliance	RoHS Compliant
Appearance	Black
Forms	Pellets
Processing Method	Injection Molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.57	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.60	--	%	
Water Absorption				ISO 62
Saturation, 23°C	4.2 to 5.2	--	%	
Equilibrium, 23°C, 50% RH	0.80 to 1.2	--	%	
Viscosity Number (96% H2SO4 (Sulphuric Acid))	130	--	cm³/g	ISO 307

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	9000	--	MPa	ISO 527-2
Tensile Stress (Break)	110	--	MPa	ISO 527-2
Tensile Strain (Break)	2.0	--	%	ISO 527-2

Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	35	--	kJ/m²	
23°C	35	--	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature (0.45 MPa, Unannealed)	265	--	°C	ISO 75-2/B
Melting Temperature	295	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 80°C	3.0E-5	--	cm/cm/°C	
Transverse : 23 to 80°C	5.0E-5	--	cm/cm/°C	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Volume Resistivity	> 1.0E+15	1.0E+14	ohms·cm	IEC 60093
Relative Permittivity (1 MHz)	4.40	4.20		IEC 60250
Dissipation Factor (1 MHz)	0.015	0.038		IEC 60250
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating (1.60 mm)	HB	--		UL 94
Injection	**Dry**	**Unit**		
Processing (Melt) Temp	310 to 330		°C	
Mold Temperature	70.0 to 100		°C	

Recommended distributors for this material

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