Mitsubishi Engineering-Plastics Corp.

XANTAR™ RX 2125

Mitsubishi Engineering-Plastics Corp - Polycarbonate

General Information

Product Description			
Flame Retardant, Non Br & Non P, Low Viscosity; UV Stabilized, Weather resistant			
General			
Additive	• Flame Retardant	• UV Stabilizer	
Features	• Bromine Free • Flame Retardant	• Good Weather Resistance • Low (to None) Phosphorus Content	• Low Viscosity • UV Stabilized

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	14	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	13	cm³/10min	ISO 1133
Molding Shrinkage			Internal Method
Across Flow	0.50 to 0.70	%	
Flow	0.50 to 0.70	%	
Water Absorption (Saturation, 23°C)	0.35	%	ISO 62
Viscosity Number	50.0	cm³/g	ISO 307
Limiting Viscosity Number	46.0	cm³/g	ISO 1628-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2300	MPa	ISO 527-1/1
Tensile Stress (Yield)	60.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	6.0	%	
Break	> 50	%	
Flexural Modulus [2]	2400	MPa	ISO 178
Flexural Stress [2]	90.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179
Notched Izod Impact Strength (23°C)	70	kJ/m²	ISO 180/4A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	130	°C	
Vicat Softening Temperature	145	°C	ISO 306
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE - Flow	6.5E-5	cm/cm/°C	ISO 11359-2
Effective Thermal Diffusivity	1.40E-7	m²/s	

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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Constant			IEC 60250
100 Hz	3.00		
1 MHz	2.90		
Dissipation Factor			IEC 60250
100 Hz	6.6E-4		
1 MHz	9.2E-3		
Comparative Tracking Index (CTI)	PLC 2		UL 746A
Comparative Tracking Index	225	V	IEC 60112

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.75 mm	V-0		
1.5 mm	V-0		
Glow Wire Flammability Index			IEC 60695-2-12
1.5 mm	960	°C	
3.0 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
1.5 mm	825	°C	
3.0 mm	850	°C	
Oxygen Index	35	%	ISO 4589-2

Fill Analysis	Nominal Value	Unit
Melt Density	1.01	g/cm³
Melt Thermal Conductivity	0.24	W/m/K
Specific Heat Capacity of Melt	1710	J/kg/°C

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	120	°C
Drying Time - Hot Air Dryer	4.0	hr
Rear Temperature	290 to 320	°C
Middle Temperature	290 to 320	°C
Front Temperature	290 to 320	°C
Nozzle Temperature	290 to 320	°C
Mold Temperature	80 to 120	°C
Ejection Temperature	131	°C