

XANTAR® 18 R

Polycarbonate
Mitsubishi Engineering-Plastics Corp

Message:
Extremely Low Viscosity, Molding Release

General Information	
UL YellowCard	E340159-100746616
Additive	Mold Release
Features	Good Mold Release
	Low Viscosity
RoHS Compliance	RoHS Compliant
Forms	Pellets
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)
	Specific Volume vs Temperature (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	23.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	0.60	%	ISO 294-4
Water Absorption (Saturation, 23°C)	0.35	%	ISO 62
Limiting Viscosity Number	43.0	cm ³ /g	ISO 1628-4
Thermal Conductivity of Melt	0.24	W/m/K	

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	70		ISO 2039-2

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2300	MPa	ISO 527-2
Tensile Stress (Yield)	60.0	MPa	ISO 527-2
Tensile Strain (Yield)	6.0	%	ISO 527-2
Nominal Tensile Strain at Break	> 50	%	ISO 527-2
Flexural Modulus	2400	MPa	ISO 178
Flexural Stress	90.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (23°C)	60	kJ/m ²	ISO 180/4A

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	130	°C	ISO 75-2/A
Vicat Softening Temperature	145	°C	ISO 306/B50

Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE - Flow	6.5E-5	cm/cm/°C	ISO 11359-2
RTI Elec			UL 746
0.750 mm	130	°C	
3.00 mm	130	°C	
RTI Imp			UL 746
0.750 mm	125	°C	
3.00 mm	130	°C	
RTI Str			UL 746
0.750 mm	125	°C	
3.00 mm	130	°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	29	kV/mm	IEC 60243-1
Relative Permittivity			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 746
Comparative Tracking Index	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.750 mm	V-2		
1.50 mm	V-2		
Glow Wire Flammability Index			IEC 60695-2-12
1.50 mm	800	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
1.50 mm	825	°C	
3.00 mm	875	°C	
Oxygen Index	26	%	ISO 4589-2
Optical	Nominal Value	Unit	Test Method
Transmittance	89.0	%	ASTM D1003

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