

Lucon® TR1000

Polymethyl Methacrylate Acrylic

LG Chem Ltd.

Product Description		
Description Transparency, Permanent Antistatic, Low Outgassing		
Application Wafer Carrier Cover, Pellicle Tray		
General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• North America • South America
Filler / Reinforcement	• Carbon Nano Filler	
Features	• Antistatic	• Low to No Outgassing
Processing Method	• Injection Molding	
Physical	Nominal Value Unit	Test Method
Specific Gravity	1.16 g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70 %	ASTM D955
Mechanical	Nominal Value Unit	Test Method
Tensile Strength ² (Yield, 3.20 mm)	54.9 MPa	ASTM D638
Tensile Elongation ² (Break, 3.20 mm)	30 %	ASTM D638
Flexural Modulus ³ (3.20 mm)	2160 MPa	ASTM D790
Flexural Strength ³ (Yield, 3.20 mm)	85.3 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact (23°C, 3.20 mm)	45 J/m	ASTM D256
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed, 3.20 mm ⁴	90.0 °C	
0.45 MPa, Unannealed, 6.40 mm ⁵	100 °C	
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	2.0E+12 ohm	IEC 60093
Optical	Nominal Value Unit	Test Method
Transmittance	75.0 %	ASTM D1003
Haze	10 %	ASTM D1003
Injection	Nominal Value Unit	
Drying Temperature	70.0 to 80.0 °C	
Drying Time	2.0 to 4.0 hr	
Rear Temperature	180 to 200 °C	
Middle Temperature	190 to 210 °C	
Front Temperature	200 to 220 °C	
Nozzle Temperature	200 to 230 °C	
Processing (Melt) Temp	200 to 230 °C	
Mold Temperature	40.0 to 60.0 °C	
Back Pressure	0.490 to 0.981 MPa	
Screw Speed	< 80 rpm	

Notes

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

² 50 mm/min

³ 15 mm/min

⁴ 18.6kg

⁵ 4.6kg