

PC 500R Technical Datasheet

1) Product Description:

PC 500R is a medium viscosity, 10% glass reinforced, flame retardant grade, especially designed for applications requiring high rigidity together with high heat resistance and excellent impact performance.

2) Applications:

Home appliances, Automotive parts, electronic and electrical applications.

3) Typical data:

Property	Test method	Unit	value
Density	ISO 1183	g/cm ³	1.25
Melt volume-flow rate, MVR@300 °C, 1.2kg	ISO 1133	cm ³ /10min	8.00
Molding shrinkage-flow ²	Internal Method	%	0.20 to 0.60
Water Absorption (Saturation, 23°C)	ISO 62	%	0.31
Water Absorption (Equilibrium, 23°C, 50% RH)	ISO 62	%	0.13
Tensile Modulus	ISO 527-2/1	MPa	3300
Tensile Stress (Yield)	ISO 527-2/5	MPa	60.0
Tensile Stress (Break)	ISO 527-2/5	MPa	45.0
Tensile Strain (Yield)	ISO 527-2/5	%	5.0
Tensile Strain (Break)	ISO 527-2/5	%	7.0
Flexural Modulus ³	ISO 178	MPa	3400
Flexural Stress ^{3,4}	ISO 178	MPa	95.0
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	Internal Method	mg	11.0
Charpy Notched Impact Strength			
-30°C ⁵	ISO 179/1eA	kJ/m ²	9.0
23°C ⁵	ISO 179/1eA	kJ/m ²	10
23	ISO 179/2C	kJ/m ²	15
Charpy Unnotched Impact Strength ⁵	ISO 179/1eU		
-30°C			No Break
23°C			No Break
Notched Izod Impact Strength ⁶	ISO 180/1A		
-30°C		kJ/m ²	8.0
23°C		kJ/m ²	10
Unnotched Izod Impact Strength ⁶	ISO 180/1U		
-30°C		kJ/m ²	130
23°C			No Break
Ball Indentation Hardness (H 358/30)	ISO 2039-1	MPa	115
Heat Deflection Temperature ⁷ (0.45 MPa, Unannealed, 100 mm Span)	ISO 75-2/Be	°C	140
Heat Deflection Temperature ⁷ (1.8 MPa, Unannealed, 100 mm Span)	ISO 75-2/Ae	°C	132
Heat Deflection Temperature ⁸ (1.8 MPa, Annealed)	ISO 75-2/Ae	°C	136
Vicat Softening Temperature			
--	ISO 306/B50	°C	141
--	ISO 306/B120	°C	143
Ball Pressure Test (125°C)	IEC 60695-10-2		Pass
CLTE - Flow (23 to 80°C)	ISO 11359-2	cm/cm/°C	4.0E-5
Thermal Conductivity	ISO 8302	W/m/K	0.21
RTI Elec	UL 746	°C	130
RTI Imp	UL 746	°C	125
RTI Str	UL 746	°C	125

* Typical values not to be construed as specifications.cm