Kotex/Carbotex Polycarbonate



Grade: KGN-20MRA Glass fiber 20% reinforced

Colour: Natural High viscosity, Mould release, Flame retardant

Izod impact strength	Properties	Standards	Test conditions	Units	Typical values	
Lizod impact strength	Mechanical Properties					
ASTM D256 V-notched 1/8" kgf cm/cm 9	Izod impact strength	ASTM D256		J/m	90	
Tensile strength at break				kgf•cm/cm	9	
Tensile strength at break				ft•lbf/in	1.6	
Tensile clongation at break	Tensile strength at break	ASTM D638		MPa	108	
Tensile elongation at break				kgf/cm ²	1100	
Flexural strength				lbf/in ²	15600	
Flexural strength	Tensile elongation at break	ASTM D638		%	4	
Blf/in² 22000 MPa 5690 Flexural modulus ASTM D790 MPa 5690 kgf/cm² 58000 blf/in² 824000 Thermal Properties Melt flow rate ASTM D1238 300°C, 1.2kgf g/10min Heat deflection temperature ASTM D648 18.6 kgf/cm² °C 145 F 293 Electrical Properties Dielectric breakdown strength ASTM D149 1.6mm kV/mm 20 Dielectrical constant ASTM D150 10 ° Hz 3.2 Dissipation factor ASTM D150 10 ° Hz 0.008 Arc resistance ASTM D495 Sec. 110 Volume resistivity ASTM D257 \$\Omega \cdot	Flexural strength	ASTM D790		MPa	152	
Blf/in² 22000 MPa 5690 Flexural modulus ASTM D790 MPa 5690 kgf/cm² 58000 blf/in² 824000 Thermal Properties Melt flow rate ASTM D1238 300°C, 1.2kgf g/10min Heat deflection temperature ASTM D648 18.6 kgf/cm² °C 145 F 293 Electrical Properties Dielectric breakdown strength ASTM D149 1.6mm kV/mm 20 Dielectrical constant ASTM D150 10 ° Hz 3.2 Dissipation factor ASTM D150 10 ° Hz 0.008 Arc resistance ASTM D495 Sec. 110 Volume resistivity ASTM D257 \$\Omega \cdot				kgf/cm ²	1550	
Flexural modulus					22000	
Blbf/in² 824000	Flexural modulus	ASTM D790		MPa	5690	
Blbf/in² 824000				kgf/cm ²	58000	
Melt flow rate ASTM D1238 300°C, 1.2kgf g/10min Heat deflection temperature ASTM D648 18.6 kgf/cm² °C 145 Electrical Properties Dielectric breakdown strength ASTM D149 1.6mm kV/mm 20 Dielectrical constant ASTM D150 10 ° Hz 3.2 Dissipation factor ASTM D150 10 ° Hz 0.008 Arc resistance ASTM D495 Sec. 110 Volume resistivity ASTM D257 Ω • cm 10 ¹ 6 Optical Properties Light transmittance ASTM D1003 3 mm % Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D570 24 hrs at 23°C % <				lbf/in ²	824000	
Heat deflection temperature ASTM D648 18.6 kgf/cm ² C 145	Thermal Properties					
Heat deflection temperature	Melt flow rate	ASTM D1238	300°C, 1.2kgf	g/10min		
F 293	Heat deflection temperature	ASTM D648	18.6 kgf/cm ²	°C	145	
Dielectric breakdown strength				°F	293	
Dielectrical constant ASTM D150 10 6 Hz 3.2 Dissipation factor ASTM D150 10 6 Hz 0.008 Arc resistance ASTM D495 Sec. 110 Volume resistivity ASTM D257 Ω • cm 10 16 Optical Properties Light transmittance ASTM D1003 3 mm % Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23 °C % ≤ 0.2	Electrical Properties					
Dissipation factor ASTM D150 10 ⁶ Hz 0.008 Arc resistance ASTM D495 Sec. 110 Volume resistivity ASTM D257 Ω•cm 10 ¹⁶ Optical Properties Light transmittance ASTM D1003 3 mm % Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D570 24 hrs at 23°C % ≤ 0.2	Dielectric breakdown strength	ASTM D149	1.6mm	kV/mm	20	
Arc resistance ASTM D495 Sec. 110 Volume resistivity ASTM D257 Ω•cm 10 16 Optical Properties Light transmittance ASTM D1003 3 mm % Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D570 24 hrs at 23°C % ≤ 0.2	Dielectrical constant	ASTM D150	10 ⁶ Hz		3.2	
Volume resistivity ASTM D257 Ω•cm 10 16 Optical Properties Light transmittance ASTM D1003 3 mm % Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23°C % ≤ 0.2	Dissipation factor	ASTM D150	10 ⁶ Hz		0.008	
Optical Properties Light transmittance ASTM D1003 3 mm % Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23°C % ≤ 0.2	Arc resistance	ASTM D495		Sec.	110	
Light transmittance ASTM D1003 3 mm % Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23°C % ≤ 0.2	Volume resistivity	ASTM D257		Ω•cm	10 ¹⁶	
Light refractive ASTM D542 Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23°C % < 0.2	Optical Properties					
Haze ASTM D1003 3 mm % Translucent Other Properties Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23°C % < 0.2	Light transmittance	ASTM D1003	3 mm	%		
Other Properties Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23°C % < 0.2	Light refractive	ASTM D542				
Specific gravity ASTM D792 1.35 Water absorption ASTM D570 24 hrs at 23°C % < 0.2	Haze	ASTM D1003	3 mm	%	Translucent	
Water absorption ASTM D570 24 hrs at 23°C % < 0.2	Other Properties					
1 Water absorption 1 Λ STM 1)570 1 1 % 1 \times 0.2	Specific gravity	ASTM D792			1.35	
"weet miniterior	Water absorption	ASTM D570	24 hrs at 23°C water immersion	%	≦ 0.2	
Mould shrinkage ASTM D955 % 0.3~0.5	Mould shrinkage	ASTM D955		%	0.3~0.5	
Flammability UL94 V-0 @ 1.7 mm		UL94			V-0 @ 1.7 mm	

To our best knowledge, the values contained herein are typical of uncoloured PC and given in good faith. They may be affected by colorants, other additives, the design of a mould/die, moulding techniques applied, the size and shape of a moulded article. In view of these factors, the properties do not relieve customers from carrying out their own investigations and tests. It is entirely the customer's responsibility to determine the suitability of material and grade used for their intended application. No warranty, express or implied is made nor is liability accepted in connection with any of the information provided. We reserve the right to make additions, deletions, or modifications to the information at any time without prior notification. Kotec Corporation (30.5.2006)