Kotex/Carbotex Polycarbonate



Grade: KG-30F15 Wear resistance, Glass fiber 20% reinforced

Colour: Natural High viscosity

Mechanical Properties Lood impact strength ASTM D256 23°C V-notched 1/8° J/m 118 Tensile strength at break ASTM D638	Properties	Standards	Test conditions	Units	Typical values	
$ \begin{tabular}{ c c c c c c } \hline Lized impact strength & ASTM D256 & V-notched $1/8" & ft-libfin & 2.2 & ft-libfin & 2.2 & MPa & 120 & $kgf'cm^2$ & 1220 & $lbf'in^2$ & 17400 & $kgf'cm^2$ & 1220 & $lbf'in^2$ & 17400 & $kgf'cm^2$ & 1220 & $lbf'in^2$ & 17400 & $kgf'cm^2$ & 1320 & $lbf'in^2$ & 13400 & $lbf'in^2$ & 18400 & $lbf'in^2$ & 708600 & $lbf'in^2$ & 1845 & $lbf'in^2$ & 708600 & $lbf'in^2$ & 18400 & $lbf'in^2$ & 184000 & $lbf'in^2$ &$	Mechanical Properties					
ASTM D256 V-notched 1/8" kgf 'cm'cm 12 ft ·1bf/in 2.2 ft ·1bf/in 2.2	Izod impact strength	ASTM D256		J/m	118	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				kgf•cm/cm	12	
Tensile strength at break ASTM D638				ft•lbf/in	2.2	
Tensile elongation at break	Tensile strength at break	ASTM D638		MPa	120	
Tensile elongation at break ASTM D638 % 3 Flexural strength ASTM D790 MPa 127 1300 157 18400 165π² 180000 18000 180000 180000 180000 180000 180000 180000 180000 180000 180000 180000 180000 180000 180000 1800000 180000 1800000 1800000				kgf/cm ²	1220	
Flexural strength ASTM D790 MPa 127 Elexural modulus ASTM D790				lbf/in ²	17400	
Flexural strength ASTM D790	Tensile elongation at break	ASTM D638		%	3	
Ibf/in² 18400 Hextural modulus ASTM D790 Ibf/in² 18400 Flexural modulus ASTM D790 ———————————————————————————————————	Flexural strength	ASTM D790		MPa	127	
Ibf/in² 18400 Hextural modulus ASTM D790 Ibf/in² 18400 Flexural modulus ASTM D790 ———————————————————————————————————				kgf/cm ²	1300	
Rexural modulus ASTM D790 wgf/cm² 50000 Thermal Properties Melt flow rate ASTM D1238 300°C, 1.2kgf g/10min Heat deflection temperature ASTM D648 18.6 kgf/cm² °C 145 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 3.2 Dissipation factor ASTM D495 Sec. 110 Volume resistively ASTM D257 Ω· cm 10 ¹ 6 Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D1003 3 mm % Haze ASTM D1003 <td< td=""><td></td><td>18400</td></td<>					18400	
Thermal Properties	Flexural modulus	ASTM D790		MPa	4900	
Thermal Properties 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 3.2 Arc resistance ASTM D495 Sec. 110 Volume resistively ASTM D257 Ω · cm 10 ¹6 Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Water absorption ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23°C water immersion % 0.2 Mould s				kgf/cm ²	50000	
Melt flow rate ASTM D1238 300°C, 1.2kgf g/10min Heat deflection temperature ASTM D648 18.6 kgf/cm² °C 145 F 293 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 resistively ASTM D257 Ω · cm 10 ° f Optical Properties Light transmittance ASTM D542 Haze ASTM D1003 3 mm % Haze ASTM D503 3 mm % Other Properties Specific gravity ASTM D570 24 hrs at 23°C water immersion % 0.2 Mould shrinkage ASTM D955 % </td <td>lbf/in²</td> <td>708600</td>				lbf/in ²	708600	
Heat deflection temperature ASTM D648 18.6 kgf/cm ² C 145 F 293 Electrical Properties	Thermal Properties					
Heat deflection temperature	Melt flow rate	ASTM D1238	300°C, 1.2kgf	g/10min		
Feature 293 Electrical Properties Dielectric breakdown strength ASTM D149 1.6mm kV/mm 20 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 resistively ASTM D257 Ω*cm 10 16 Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D570 24 hrs at 23 °C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3 ~0.5	Heat deflection temperature	ASTM D648	18.6 kgf/cm ²	°C	145	
Dielectric breakdown strength ASTM D149 1.6mm kV/mm 20 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 resistively ASTM D257 Ω•cm 10 16 Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23 °C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3 ~0.5				°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 resistively ASTM D257 Ω·cm 10 ¹⁶ Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23 °C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Electrical Properties					
Dissipation factor ASTM D150 10 ⁶ Hz 0.008 Arc resistance ASTM D495 Sec. 110 Volume resistively ASTM D257 Ω • cm 10 ¹⁶ Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23 °C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Dielectric breakdown strength	ASTM D149	1.6mm	kV/mm	20	
Arc resistance ASTM D495 Sec. 110 Volume resistively ASTM D257 Ω · cm 10 ¹⁶ Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23 °C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3 ~ 0.5	Dielectrical constant	ASTM D150	10 ⁶ Hz		3.2	
Volume resistively ASTM D257 Ω·cm 10 16 Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23°C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Dissipation factor	ASTM D150	10 ⁶ Hz		0.008	
Optical Properties Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23°C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Arc resistance	ASTM D495		Sec.	110	
Light transmittance ASTM D1003 3 mm % Translucent Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23 °C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Volume resistively	ASTM D257		Ω•cm	10 ¹⁶	
Light refractive ASTM D542 Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23 °C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3 ~ 0.5	Optical Properties					
Haze ASTM D1003 3 mm % Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23°C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Light transmittance	ASTM D1003	3 mm	%	Translucent	
Other Properties Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23°C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Light refractive	ASTM D542				
Specific gravity ASTM D792 1.57 Water absorption ASTM D570 24 hrs at 23°C water immersion % 0.2 Mould shrinkage ASTM D955 % 0.3~0.5	Haze	ASTM D1003	3 mm	%		
Water absorption ASTM D570 24 hrs at 23°C water immersion Mould shrinkage ASTM D955 % 0.2 0.3~0.5	Other Properties					
Water absorption ASTM D570 water immersion Mould shrinkage ASTM D955 % 0.2 0.3~0.5	Specific gravity	ASTM D792			1.57	
	Water absorption	ASTM D570		%	0.2	
Flammability UL94 (Equivalent V-0)	Mould shrinkage	ASTM D955		%	0.3~0.5	
	Flammability	UL94			(Equivalent V-0)	

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)