KP Plastics INDUSTRY ASSOCIATION

Technical Datasheet of Polycarbonate PC110U

Properties	ISO	Din	Unit	Test Method	WONDERLITE® PC									
					Extrusion		General Purpose			UV Resistant			SAE Approved	Flame Retardant
					PC-108	PC-108U	PC-110	PC-115	PC-122	PC-110U	PC-115U	PC-122U	PC-110L	PC-110V
Melt Volume-Flow Rate	1133		cm^3/10 min	300℃×1.2 Kg	6.5	6.5	10	15	22	10	15	22	10	10
Vicat Softening Temp.	306	53460	℃	1 Kg, 50℃/hr	150	148	150	150	150	148	148	148	148	150
			℃	5 Kg, 50℃/hr	145	143	145	145	145	143	143	143	143	145
H.D.T	75	53461	℃	1.80MPa, unanneal	128	127	128	128	128	127	127	127	127	128
			℃	1.80MPa, anneal	143	142	143	143	143	142	142	142	142	143
Izod Impact Strength	180/1A	——	KJ/m^2	1/8" notched	80	80	80	75	70	80	75	70	80	80
	180/1U	——		1/8" unnotched	——	——	——	——	——	——	——	——	——	——
Charpy Impact Strength	179	——	KJ/m^2	Notched	75	75	75	70	60	75	70	60	75	75
		——		Unnotched	——	——	——	——	——	——	——	——	——	——
Tensile Strength	527	53455	MPa	50mm/min,yield	65	65	65	64	63	65	64	63	65	65
			MPa	50mm/min,break	75	75	75	70	70	75	70	70	75	75
Tensile Elongation	527	53455	%	50mm/min	120	120	120	120	120	120	120	120	120	120
Flexural Strength	178	53452	MPa	2mm/min	90	90	90	90	90	90	90	90	90	90
Flexural Modulus	178	53452	MPa	2mm/min	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Ball Identation Hardness	2039-1	53456	N/mm^2	H358/30	100	100	100	101	102	100	101	102	100	100
Flammability			——	UL-94	1.5mm HB 3.0mm HB	1.5mm HB 3.0mm HB	1.5mm V-2 2.5mm V-2	0.4mm V-2 1.5mm V-2 2.5mm V-2	1.6mm V-2 3.2mm V-2	0.75mm V-2 1.5mm V-2	0.75mm V-2 1.5mm V-2	0.75mm V-2 3.0mm V-2	1.5mm V-2	1.5mm V-2 3.0mm V-2 6.0mm V-0
Mass Density	1183	53479-A	g/cm^3		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Characteristics/Principal Applications					High Viscosity	UV Stabilized	Medium Viscosity	Low Viscosity	High Flow	UV Stabilized	UV Stabilized	UV Stabilized	SAE Approved	3.0mm V-2

Note : This Technical data sheet shown above is for reference only.

Categories:	Polymer; Thermoplastic; Polycarbonate
Material Notes:	Medium Viscosity
Vendors:	No vendors are listed for this material. Please click here if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in³	ISO 1183
Melt Flow	10.0 g/10 min @Load 1.20 kg, Temperature 300 °C	10.0 g/10 min @Load 2.65 lb, Temperature 572 °F	Melt Volume Rate (ml/10 min); ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	100 MPa	14500 psi	H358/30; ISO 2039-1
Tensile Strength at Break	75.0 MPa	10900 psi	50 mm/min; ISO 527
Tensile Strength, Yield	65.0 MPa	9430 psi	50 mm/min; ISO 527
Elongation at Break	120 %	120 %	50 mm/min; ISO 527
Flexural Modulus	2.40 GPa	348 ksi	2 mm/min; ISO 178
Flexural Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
Charpy Impact, Notched	7.50 J/cm²	35.7 ft-lb/in²	ISO 179
Izod Impact, Notched (ISO)	80.0 kJ/m²	38.1 ft-lb/in²	ISO 180/4A

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	128 °C	262 °F	annealed; ISO 75
	143 °C	289 °F	unannealed; ISO 75
Vicat Softening Point	145 °C @Load 5.00 kg	293 °F @Load 11.0 lb	50°C/hr; ISO 306
	150 °C @Load 1.00 kg	302 °F @Load 2.20 lb	50°C/hr; ISO 306
Flammability, UL94	V-2 @Thickness 2.54 mm	V-2 @Thickness 0.100 in	

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