

AuroraGuard™ PC3512UR-CL1001

Aurora Material Solutions, LLC - Polycarbonate

General Information

Product Description

AuroraGuard™ PC3512UR-CL1001 is an UV Stabilized, Clear Polycarbonate (PC) Injection Molding Grade.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • Latin America • North America
Additive	• Mold Release • UV Stabilizer
Features	• Good Heat Resistance • Good Mold Release • UV Stabilized
Uses	• Agricultural Applications • Construction Applications • General Purpose
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Injection Molding

 Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.19		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	35	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical			
Tensile Modulus	348000	psi	ASTM D638
Tensile Strength (Yield)	9400	psi	ASTM D638
Tensile Elongation (Break)	> 120	%	ASTM D638
Flexural Modulus	341000	psi	ASTM D790
Flexural Strength	13100	psi	ASTM D790
Impact			
Notched Izod Impact (73°F)	15	ft·lb/in	ASTM D256
Gardner Impact (73°F)	560	in·lb	ASTM D5420
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	258	°F	ASTM D648
Flammability			
Flame Rating (0.06 in)	V-2		Internal Method

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	230	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	480 to 500	°F
Middle Temperature	520 to 540	°F
Front Temperature	530 to 550	°F
Nozzle Temperature	550 to 570	°F
Mold Temperature	160 to 200	°F
Injection Rate	Moderate-Fast	
Back Pressure	50.0 to 200	psi
Screw Speed	40 to 70	rpm

