AuroraGuard™ ENV11-19413

Aurora Material Solutions, LLC - *Polycarbonate*

General Information

Product Description			
AuroraGuard™ ENV11-19413 is a High Viscosity, High Impact, UV Stabilized, Clear Polycarbonate (PC) Injection Molding Grade.			
General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Good Mold Release	• UV Stabilized	
Uses	• Clear Sheet	• Construction Applications	• Outdoor Applications
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent		
Forms	• Pellets		
Processing Method	• Injection Molding	• Sheet Extrusion	

Properties [1]

Physical	**Nominal Value**	**Unit**	**Test Method**
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	7.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	9000	psi	ASTM D638
Tensile Elongation (Break)	> 100	%	ASTM D638
Flexural Modulus	341000	psi	ASTM D790
Flexural Strength	13100	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	16	ft·lb/in	ASTM D256
Gardner Impact (73°F)	480	in·lb	ASTM D5420
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	291	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	270	°F	ASTM D648
Vicat Softening Temperature	307	°F	ASTM D1525 [2]
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.13 in)	V-2		Internal Method
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.585		ASTM D542
Light Transmittance	89.0	%	ASTM D1003
Haze	< 0.800	%	ASTM D1003

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature	230	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	520 to 560	°F
Middle Temperature	520 to 560	°F
Front Temperature	500 to 540	°F
Nozzle Temperature	510 to 550	°F
Mold Temperature	160 to 200	°F

Injection Rate	Moderate-Fast
Back Pressure	50.0 to 200 psi
Screw Speed	40 to 70 rpm

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Rate B (120°C/h), Loading 2 (50 N)