EMERGE™ PC/PET 9500CR
Advanced Resin

Overview

EMERGE™ PC/PET 9500CR Advanced Resin is a polycarbonate blend with excellent chemical and ignition resistance properties. It is designed for use in equipment housings and other applications that are subject to repeated exposure to a variety of cleaners and disinfectants chemicals. This grade has good aesthetics and excellent toughness. It has a UL 94 rating of V0 at 2.0 mm.

Main Characteristics:

- Excellent chemical resistance

Applications:

- Equipment housings or enclosures

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.29	g/cm³	1.29	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)					ASTM D1238
260°C/5.0 kg	10	g/10 min	10	g/10 min	
265°C/5.0 kg	13	g/10 min	13	g/10 min	
Molding Shrinkage					ASTM D955
Flow	6.0E-3 to 9.5E-3	in/in	0.60 to 0.95	%	
Across Flow	5.0E-3 to 7.0E-3	in/in	0.50 to 0.70	%	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus [1]					ASTM D638
0.126 in (3.20 mm), Injection Molded	338000	psi	2330	MPa	
Tensile Strength [2]					ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	7690	psi	53.0	MPa	
Break, 0.126 in (3.20 mm), Injection Molded	6530	psi	45.0	MPa	
Tensile Elongation [2]					ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	4.1	%	4.1	%	
Break, 0.126 in (3.20 mm), Injection Molded	150	%	150	%	
Flexural Modulus [3]					ASTM D790
0.126 in (3.20 mm), Injection Molded	329000	psi	2270	MPa	
Flexural Strength [3]					ASTM D790
0.126 in (3.20 mm), Injection Molded	11900	psi	82.0	MPa	
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact					ASTM D256
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	14	ft·lb/in	750	J/m	
Instrumented Dart Impact					ASTM D3763
32°F (0°C), 0.126 in (3.20 mm), Injection Molded, Peak Energy	434	in·lb	49.0	J	
32°F (0°C), 0.126 in (3.20 mm), Injection Molded, Total Energy	549	in·lb	62.0	J	
73°F (23°C), 0.126 in (3.20 mm), Injection Molded, Peak Energy	398	in·lb	45.0	J	
73°F (23°C), 0.126 in (3.20 mm), Injection Molded, Total Energy	531	in·lb	60.0	J	

Hardness	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Rockwell Hardness					ASTM D785
R-Scale, 0.126 in (3.20 mm), Injection Molded	110		110		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	228	°F	109	°C	
264 psi (1.8 MPa), Unannealed	174	°F	79.0	°C	
Vicat Softening Temperature	284	°F	140	°C	ASTM D1525 [4]
CLTE - Flow (-40 to 176°F (-40 to 80°C))	4.1E-5	in/in/°F	7.4E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Surface Resistivity	5.2E+15	ohms	5.2E+15	ohms	IEC 60093
Volume Resistivity	1.0E+18	ohms·cm	1.0E+18	ohms·cm	IEC 60093
Electric Strength					IEC 60243-1
0.0630 in (1.60 mm), in Oil	790	V/mil	31	kV/mm	
0.126 in (3.20 mm), in Oil	460	V/mil	18	kV/mm	
Relative Permittivity					IEC 60250
100 Hz	3.28		3.28		
1 MHz	3.12		3.12		
Dissipation Factor					IEC 60250
100 Hz	3.0E-3		3.0E-3		
1 MHz	0.020		0.020		
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Flame Rating					UL 94
0.06 in (1.5 mm) [5]	V-1		V-1		
0.08 in (2.0 mm) [5]	V-0		V-0		
0.10 in (2.5 mm) [6]	5VA		5VA		
Glow Wire Flammability Index					IEC 60695-2-12
0.06 in (1.5 mm)	1520	°F	825	°C	
0.08 in (2.0 mm)	1760	°F	960	°C	
0.10 in (2.5 mm)	1760	°F	960	°C	

Injection	Nominal Value	(English)	Nominal Value	(SI)
Drying Temperature	250	°F	121	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Processing (Melt) Temp	480 to 540	°F	249 to 282	°C
Mold Temperature	110 to 150	°F	43 to 66	°C