TRINSEO™

EMERGE™ PC/ABS 7890
Advanced Resin

Overview

EMERGE™ PC/ABS 7890 Advanced Resin is an ignition-resistance PC/ABS alloy contains no chlorine or bromine additives. This resin provides superior processability for molding thin-wall parts and optimizing cycle time productivity in injection molding operations.

Applications:

- Enclosures for consumer electronics
- Accessories in information technology equipment

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm³	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)					ASTM D1238
230°C/3.8 kg	14	g/10 min	14	g/10 min	
260°C/5.0 kg	57	g/10 min	57	g/10 min	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus					ASTM D638
0.126 in (3.20 mm), Injection Molded	331000	psi	2280	MPa	
Tensile Strength					ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	8700	psi	60.0	MPa	
Break, 0.126 in (3.20 mm), Injection Molded	6670	psi	46.0	MPa	
Tensile Elongation					ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	3.2	%	3.2	%	
Break, 0.126 in (3.20 mm), Injection Molded	37	%	37	%	
Flexural Modulus					ASTM D790
0.126 in (3.20 mm), Injection Molded	387000	psi	2670	MPa	
Flexural Strength					ASTM D790
0.126 in (3.20 mm), Injection Molded	13500	psi	93.0	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	10	ft·lb/in	550	J/m	
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Rockwell Hardness					ASTM D785
R-Scale, 0.126 in (3.20 mm), Injection Molded	117		117		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	194	°F	90.0	°C	
66 psi (0.45 MPa), Annealed	201	°F	94.0	°C	
264 psi (1.8 MPa), Unannealed	172	°F	78.0	°C	
264 psi (1.8 MPa), Annealed	194	°F	90.0	°C	
Vicat Softening Temperature					
--	201	°F	94.0	°C	ASTM D1525 [1]
--	223	°F	106	°C	ASTM D1525 [2]

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating [3]			UL 94
0.020 in (0.50 mm), all color	V-2	V-2	
0.04 in (1.0 mm), all color	V-1	V-1	
0.04 in (1.0 mm), NC, BK	V-0	V-0	
0.06 in (1.4 mm), all color	• V-0 • 5VB	• V-0 • 5VB	

Injection	Nominal Value (English)		Nominal Value (SI)	
Drying Temperature	176	°F	80	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Processing (Melt) Temp	446 to 500	°F	230 to 260	°C
Mold Temperature	104 to 158	°F	40 to 70	°C