EMERGE™ PC 8130-10

Trinseo - Advanced Resin

General Information

Product Description

EMERGE™ PC 8130 Advanced Resin is an ignition-resistant polycarbonate resin with improved UV stability. It is designed for thin-wall applications and has a UL94 V-0 rating at 1.0 mm. EMERGE PC 8130 is also f1 rated according to UL 746C. This resin does not contain chlorinated or brominated flame retardant additives.

Applications:

- Powered Device Housings
- Information technology equipment
- Electrical parts

General			
Additive	• Mold Release	• UV Stabilizer	
Features	• Bromine Free • Chlorine Free	• Flame Retardant • Ignition Resistant	• UV Resistant
Uses	• Electrical Housing • Electrical/Electronic Applications	• Housings • Sheet	• Thin-walled Parts
Forms	• Pellets		
Processing Method	• Injection Molding	• Profile 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)	10	g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3	in/in	ASTM D955
Molding Shrinkage - Flow	0.50 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	334000	psi	ASTM D638
Tensile Strength [3] (Yield)	8700	psi	ASTM D638
Tensile Stress (Yield)	8850	psi	ISO 527-2/50
Tensile Strength [3] (Break)	9430	psi	ASTM D638
Tensile Stress (Break)	8560	psi	ISO 527-2/50
Tensile Elongation [3] (Yield)	6.0	%	ASTM D638
Tensile Elongation [3] (Break)	120	%	ASTM D638
Flexural Modulus [4]	348000	psi	ASTM D790
Flexural Strength [4]	13800	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	13	ft·lb/in	ASTM D256
Instrumented Dart Impact [5] (73°F, Total energy)	549	in·lb	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	259	°F	
Vicat Softening Temperature	304	°F	ASTM D1525 [6]
CLTE - Flow (-40 to 176°F)	3.6E-5	in/in/°F	ASTM D696

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Electrical	Nominal Value	Unit	Test Method
Arc Resistance	PLC 7		ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating [7]			UL 94
0.031 in	V-1		
0.04 in	V-0		
0.08 in	• V-0 • 5VB		
0.12 in	• V-0 • 5VA		
Glow Wire Flammability Index [7] (0.08 in)	1760	°F	IEC 60695-2-12
Glow Wire Ignition Temperature [7] (0.08 in)	1560	°F	IEC 60695-2-13

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	518 to 572	°F
Mold Temperature	158 to 230	°F

Notes

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

[2] 0.039 in/min

[3] 2.0 in/min

[4] 0.051 in/min

[5] 11.1 ft/sec

[6] Rate A (50°C/h), Loading 2 (50 N)

[7] This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.