

# **EMERGE™ PC 8130-10**

# Trinseo - Advanced Resin

Tuesday, November 5, 2019

## **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 chlorine or bromine additives.

#### Main Characteristics:

- · Ignition resistant
- UV resistant

#### Applications:

- Powered Device Housings
- · Information technology equipment
- · Electrical parts

General			
Material Status	Commercial: Active		
Availability	North America		
Features	<ul><li>Bromine Free</li><li>Chlorine Free</li><li>Good Flow</li></ul>	UV Resistant	
Uses	<ul> <li>Electrical Housing</li> <li>Housings</li> <li>Electrical/Electronic Applications</li> <li>Thin-walled Parts</li> </ul>		
Forms	• Pellets		
Processing Method	Injection Molding		

ASTM & ISO Properties 1					
Physical	Nominal Value	Unit	Test Method		
Density / Specific Gravity	1.20		ASTM D792		
Melt Mass-Flow Rate (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		
Water Absorption (24 hr, 73°F)	0.15	%	ASTM D570		
Outdoor Suitability	f1		UL 746C		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	345000	psi	ASTM D638		
Tensile Strength (Yield)	8910	psi	ASTM D638		
Tensile Stress (Yield)	8850	psi	ISO 527-2/50		
Tensile Strength (Break)	8500	psi	ASTM D638		
Tensile Stress (Break)	8560	psi	ISO 527-2/50		
Tensile Elongation (Yield)	6.0	%	ASTM D638		
Tensile Elongation (Break)	120	%	ASTM D638		
Flexural Modulus	338000	psi	ASTM D790		
Flexural Strength	14200	psi	ASTM D790		
Impact	Nominal Value	Unit	Test Method		
Notched Izod Impact (73°F)	13	ft·lb/in	ASTM D256		
Instrumented Dart Impact	550	in·lb	ASTM D3763		
Tensile Impact Strength	300	ft·lb/in²	ASTM D1822		

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	279	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	261	°F	
Vicat Softening Temperature	304	°F	ASTM D1525
CLTE - Flow	3.6E-5	in/in/°F	ASTM D696
RTI Elec	266	°F	UL 746
RTI Imp	239	°F	UL 746
RTI Str	266	°F	UL 746
Electrical	Nominal Value	Unit	Test Method
Arc Resistance	PLC 7		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)			UL 746
0.03 in	PLC 2		
0.04 to 0.12 in	PLC 1		
High Voltage Arc Resistance to Ignition (HVAR)	PLC 1		UL 746
Hot-wire Ignition (HWI) (0.03 to 0.12 in)	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating <sup>2</sup>			Internal Method
0.03 in, all	V-1		
0.03 in, wt, black	V-0		
0.04 in, all	V-0		
0.08 in, all	5VB		
0.12 in, all	5VA		
Proces	ssing Information		
Injection	Nominal Value	Unit	
Drying Temperature	250	°F	
Drying Time	3.0 to 4.0	hr	

### **Notes**

Processing (Melt) Temp

550 to 575 °F

<sup>&</sup>lt;sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>&</sup>lt;sup>2</sup> This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.