EMERGE™ PC 8430-7 LT
Advanced Resin

Overview

EMERGE™ PC 8430-7 LT advanced resin is a transparent, ignition resistant PC resin that contains no chlorinated or brominated or phosphorous based additives. The resin is designed to meet the German norm DIN VDE-0472/Part 815 on halogens. This resin combines good mechanical and high RTI properties, ensuring longer sustained aesthetics and mechanical resistance, to the applications. EMERGE ™ PC 8430-7 LT has a UL 94 V-0 rating at 1.5 mm, and contains mould release agent and UV stabilizer.

Applications:
- Electrical
- Lighting
- Diffusers
- Lenses

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.20	g/cm^3	1.20	g/cm^3	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	7.0	g/10 min	7.0	g/10 min	ISO 1133
Molding Shrinkage	0.0050 to 0.0070	in/in	0.50 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	348000	psi	2400	MPa	ISO 527-2
Tensile Stress					ISO 527-2
Yield	8700	psi	60.0	MPa	
Break	10200	psi	70.0	MPa	
Tensile Strain					ISO 527-2
Yield	6.0	%	6.0	%	
Break	110	%	110	%	
Flexural Modulus	341000	psi	2350	MPa	ISO 178
Flexural Strength	13800	psi	95.0	MPa	ISO 178
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength (73°F (23°C))	17	ft·lb/in^2	35	kJ/m^2	ISO 179/1eA
Notched Izod Impact Strength (73°F (23°C))	33	ft·lb/in^2	70	kJ/m^2	ISO 180/A
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Heat Deflection Temperature					
66 psi (0.45 MPa), Annealed	291	°F	144	°C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	257	°F	125	°C	ISO 75-2/A
264 psi (1.8 MPa), Annealed	286	°F	141	°C	ISO 75-2/A
Vicat Softening Temperature	298	°F	148	°C	ISO 306/B50
Ball Indentation Temperature	> 257	°F	> 125	°C	IEC 60335-1
CLTE - Flow	0.000039	in/in/°F	0.000070	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Surface Resistivity	> 1.0E+15	ohm	> 1.0E+15	ohm	IEC 60093
Volume Resistivity	> 1.0E+15	ohm·cm	> 1.0E+15	ohm·cm	IEC 60093
Electric Strength	430	V/mil	17	kV/mm	IEC 60243-1
Dielectric Constant					IEC 60250
1 Hz	2.70		2.70		
50 Hz	2.70		2.70		
Dissipation Factor					IEC 60250
1 Hz	0.0010		0.0010		
50 Hz	0.0010		0.0010		
Comparative Tracking Index (Solution A)	225	V	225	V	IEC 60112

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94 [1]
0.0295 in (0.750 mm)	V-2	V-2	
0.0591 in (1.50 mm)	V-0	V-0	
0.118 in (3.00 mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12 [1]
0.0394 in (1.00 mm)	1760 °F	960 °C	
0.0787 in (2.00 mm)	1760 °F	960 °C	
0.118 in (3.00 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13 [1]
0.0394 in (1.00 mm)	1470 °F	800 °C	
0.0787 in (2.00 mm)	1470 °F	800 °C	
0.118 in (3.00 mm)	1470 °F	800 °C	
Oxygen Index	40 %	40 %	ISO 4589-2 [1]

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Transmittance	88.0 to 89.0 %	88.0 to 89.0 %	ASTM D1003 [2]

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	> 572 °F	> 300 °C
Mold Temperature	158 to 212 °F	70.0 to 100 °C

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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

[2] standard tints

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