

CELEX™ 5200HF.K

Polycarbonate Resin

Overview

CELEX 5200HF.K is a non-halogen ignition resistant PC/ABS alloy. It combines the superior physical properties of PC and the excellent processability of ABS.

Applications:

- ITE enclosures
- Instrument panel

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm ³	1.18 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	18 g/10 min	18 g/10 min	ASTM D1238
Molding Shrinkage - Flow	5.0E-3 to 7.0E-3 in/in	0.50 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ASTM D638
0.126 in (3.20 mm), Injection Molded	355000 psi	2450 MPa	
Tensile Strength			ASTM D638
Yield, 0.126 in (3.20 mm), Injection Molded	7980 psi	55.0 MPa	
Tensile Elongation			ASTM D638
Break, 0.126 in (3.20 mm), Injection Molded	100 %	100 %	
Flexural Modulus			ASTM D790
0.126 in (3.20 mm), Injection Molded	377000 psi	2600 MPa	
Flexural Strength			ASTM D790
0.126 in (3.20 mm), Injection Molded	12800 psi	88.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-4°F (-20°C), 0.126 in (3.20 mm), Injection Molded	4.1 ft-lb/in	220 J/m	
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	14 ft-lb/in	750 J/m	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	169 °F	76.0 °C	
Vicat Softening Temperature	212 °F	100 °C	ASTM D1525 ¹
RTI Elec	140 °F	60.0 °C	UL 746
RTI Imp	140 °F	60.0 °C	UL 746
RTI Str	140 °F	60.0 °C	UL 746
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity	1.0E+11 ohms-cm	1.0E+11 ohms-cm	ASTM D257
Dielectric Strength	660 V/mil	26 kV/mm	ASTM D149
Comparative Tracking Index	> 600 V	> 600 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating ²	• V-0 • 5VB	• V-0 • 5VB	UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1380 °F	750 °C	

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
Rear Temperature	374 to 428 °F	190 to 220 °C
Middle Temperature	392 to 437 °F	200 to 225 °C
Front Temperature	401 to 455 °F	205 to 235 °C
Nozzle Temperature	410 to 455 °F	210 to 235 °C
Mold Temperature	104 to 140 °F	40 to 60 °C

Notes

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

¹ Rate B (120°C/h), Loading 1 (10 N)

² This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.



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