EMERGE[™] PC 4330-15

Advanced Resin

Trinseo

Message:

EMERGE[™] PC 4330-15 Advanced Resin is a polycarbonate resin offering ultraviolet light stability, high heat resistance, and maximum toughness. This UV stable resin is available in a full range of colors that can be custom tailored to meet your product requirements. Applications: Consumer Electronics and Information Technology Equipment Computer and Business Equipment Portable Electronics

General Information			
UL YellowCard	E206114-228295		
Features	Good Toughness		
	High Heat Resistance		
	J		
Uses	Business Equipment		
	Electrical/Electronic Applications		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 3.20 mm, Injection Molded)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (3.20 mm, Injection			
Molded)	2410	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield, 3.20 mm, Injection Molded	60.0	MPa	
Break, 3.20 mm, Injection Molded	71.0	MPa	
Tensile Elongation (Break, 3.20 mm, Injection Molded)	150	%	ASTM D638
Flexural Modulus (3.20 mm, Injection Molded)	2410	MPa	ASTM D790
Flexural Strength (3.20 mm, Injection			
Molded)	96.5	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.20 mm, Injection Molded)	850	J/m	ASTM D256

CLTE - Flow (-40 to 80°C)6.8E-5cm/cm/°CASTM D696ElectricalNominal ValueUnitTest MethodVolume Resistivity2.0E+17ohms · cmASTM D257Dielectric Strength17kV/mmASTM D199Dielectric Constant.ASTM D19060 Hz3.001 MHz3.000 KIZ1.0E-31 MHz2.0E-31 MHz2.0E-3FlammabilityNominal ValueUnitTest MethodFlammabilityNominal ValueUnitTest Method1.59 mmHB3.20 mmHB1.59 mmASTM D263% ASTM D263NOTE1.3.39 m/sec2.Rate A (50°C/h), Loading 2 (50 N)s.ConditionsJ.This rating not intended to reflect hazards presented by this or any other material under actual fire.S.This rating not intended to reflect hazards presented by this or any other material under actual fire.				
mm Injection Molded, Total Energy87.0JASTM D3763ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load'CSTM D6480.45 MPa, Annealed, 3.99 mm143'C1.8 MPa, Annealed, 3.99 mm127'C1.8 MPa, Annealed, 3.99 mm140'CVicat Softening Temperature148'CUkat Softening Temperature148'CUkat Softening Temperature6.8E-5cm/cm/CElectricalNominal ValueUnitVolume Resistivity0.2E+17ohms cmDielectric Constant2.0E+17ohms cmOlume Resistivity3.00STM D15060 Hz3.00Test Method1 MHz0.2E-3Test Method1 MHz0.2E-3Test Method1 MHz0.2E-3Test Method1 MHz0.2E-3Test Method1 SomMBTest Method1 SomMBTest Method3.20 mmH8Test Method1 SomMBTest Method1 SomASTM D150Test Method3.20 mm46S0 cygen Index ⁴ 3.39 m/sec2.Sam Massen Sam Massen S	-	No Break		ASTM D256
Deflection Temperature Under Load ASTM D648 0.45 MPa, Annealed, 3.99 mm 143 "C 1.8 MPa, Annealed, 3.99 mm 127 "C 1.8 MPa, Annealed, 3.99 mm 140 "C Vicat Softening Temperature 148 "C ASTM D648 CLTE - Flow (-40 to 80°C) 6.8E-5 cm/cm/cm/cm/cm/cm ASTM D696 Electrical Nominal Value Unit Test Method Volume Resistivity 2.0E +17 ohms · cm ASTM D195 Dielectric Constant 7 strin D190 ASTM D190 0 Hz 3.00 - - 1 MHz 3.00 - - 1 MHz 2.0E-3 - - 1 MHz 2.0E-3 - - 1 Mmability Nominal Value Unit Test Method Flammability Nominal Value Unit 104 1.92 mm HB - - 3.20 mm HB -<		87.0	J	ASTM D3763
0.45 MPa, Annealed, 3.99 mm 143 "C 1.8 MPa, Junanealed, 3.99 mm 127 "C 1.8 MPa, Annealed, 3.99 mm 140 "C Vicat Softening Temperature 148 "C ASTM D1525 CLTE - Flow (-40 to 80°C) 6.8E-5 cm/cm/"C ASTM D525 CLTE - Flow (-40 to 80°C) 6.8E-5 cm/cm/"C ASTM D525 Dielectrical Nominal Value Unit Test Method Volume Resistivity 2.0E+17 ohms - cm ASTM D1525 Dielectric Strength 17 KV/mm ASTM D150 60 Hz 3.00 - - - 1 MHz 3.00 - - - 10 Hz 3.00 - - - - 1 MHz 3.00 - </td <td>Thermal</td> <td>Nominal Value</td> <td>Unit</td> <td>Test Method</td>	Thermal	Nominal Value	Unit	Test Method
18 MPa, Junanealed, 3.99 mm 127 "C 18 MPa, Junanealed, 3.99 mm 140 "C 18 MPa, Junanealed, 3.99 mm 140 "C Vicat Softening Temperature 148 "C ASTM D1525 CLTE - Flow (-40 to 80°C) 6.8E-5 cm/cm/"C ASTM D1525 Electrical Nominal Value Unit Test Method Volume Resistivity 2.0E+17 ohms - cm ASTM D1525 Dielectric Strength 17 kV/mm ASTM D150 60 Hz 3.00	Deflection Temperature Under Load			ASTM D648
18 MPa, Annealed, 3.99 mm 140 "C Vicat Softening Temperature 148 "C ASTM D1525 CLTE - Flow (-40 to 80°C) 6.8E-5 cm/cm/"C ASTM D596 Electrical Nominal Value Unit Test Method Volume Resistivity 2.0E+17 ohms -cm ASTM D257 Dielectric Strength 17 kV/mm ASTM D150 60 Hz 3.00	0.45 MPa, Annealed, 3.99 mm	143	°C	
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CLTE - Flow (-40 to 80°C)6.8E-5cm/cm/°CASTM D696ElectricalNominal ValueUnitTest MethodVolume Resistivity2.0E+17ohms ·cmASTM D257Dielectric Strength17KV/mmASTM D199Dielectric Constant7KV/mmASTM D15060 Hz3.001 MHz3.001 MHz3.0060 Hz1.0E-31 MHz2.0E-31 MHz2.0E-31 MHz2.0E-31 MHz2.0E-31 MHz2.0E-31 Sp mmHB1.59 mmHB3.20 mmHB1.59 mmASTM D2863%ASTM D2863NOTE2.Rate A (50°C/h), Loading 2 (50 N)-3.This rating not intended to reflect hazards presented by this or any other material under actual fire-3.This rating not intended to reflect hazards presented by this or any other material under actual fire-	1.8 MPa, Annealed, 3.99 mm	140	°C	
ElectricalNominal ValueUnitTest MethodVolume Resistivity2.0E+17ohms·cmASTM D257Dielectric Strength17kV/mmASTM D149Dielectric Constant	Vicat Softening Temperature	148	°C	ASTM D1525 ²
Volume Resistivity 2.0E+17 ohms·cm ASTM D257 Dielectric Strength 17 kV/mm ASTM D149 Dielectric Constant . ASTM D150 60 Hz 3.00 . . 1 MHz 3.00 . . Dissipation Factor . . ASTM D150 60 Hz 1.0E-3 . . 1 MHz 2.0E-3 . . Flam Rating ³ 1.59 mm HB . . . 3.20 mm HB . . . 0xygen Index ⁴ 26 % . . 1.59 mm 3.20 mm HB NOTE 3.4 <td>CLTE - Flow (-40 to 80°C)</td> <td>6.8E-5</td> <td>cm/cm/°C</td> <td>ASTM D696</td>	CLTE - Flow (-40 to 80°C)	6.8E-5	cm/cm/°C	ASTM D696
Dielectric Strength 17 kV/mm ASTM D149 Dielectric Constant ASTM D150 60 Hz 3.00 1 MHz 3.00 Dissipation Factor ASTM D150 60 Hz 1.0E-3 1 MHz 2.0E-3 1 MHz 2.0E-3 Flammability Nominal Value Unit Test Method Flame Rating ³ UL 94 1.59 mm HB 3.20 mm HB 3.20 mm HB 3.20 mm ASTM D140 MB 1.59 mm HB 3.20 mm HB 1.59 mm HB 3.20 mm HB 5.20 mm HB 1.59 mm HB 5.20 mm HB 1.59 mm HB 5.20 mm HB	Electrical	Nominal Value	Unit	Test Method
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Oxygen Index 426%ASTM D2863NOTE1.3.39 m/sec2.Rate A (50°C/h), Loading 2 (50 N)2.This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.3.This rating not intended to reflect hazards presented by this or any other material under actual fire other material under actual fire	1.59 mm	НВ		
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hazards presented by this or any other material under actual fire	3.	hazards presented by this or any other material under actual fire		
4. conditions.	4.	hazards presented by this or any		

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