Technical Information

TRINSEO™

SOLARKOTE™ A200

Overview

SOLARKOTE™ A200 is an impact modified specialty grade thermoplastic acrylic resin formulated for capstock coextrusion. It is characterized by good balance between melt flow and chemical resistance. Key applications include building & construction and custom sheet markets, where high gloss and scratch resistance are desired. Primarily used as cap layer for ABS, acrylic, composite, and pultruded substrates.

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.15	g/cm³	1.15	g/cm³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR)					
230°C/3.8 kg	1.6	g/10 min	1.6	g/10 min	ASTM D1238
230°C/3.8 kg	1.2	g/10 min	1.2	g/10 min	ISO 1133
Molding Shrinkage - Flow	3.0E-3 to 8.0E-3	in/in	0.30 to 0.80	%	ASTM D955
Water Absorption					
24 hr	0.46	%	0.46	%	ASTM D570
Equilibrium, 73°F (23°C), 50% RH	0.40	%	0.40	%	ISO 62
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength					
Yield	5500	psi	37.9	MPa	ASTM D638
Break	5510	psi	38.0	MPa	ISO 527-2
Tensile Elongation (Break)	50	%	50	%	ASTM D638 ISO 527-2
Flexural Modulus	270000	psi	1860	MPa	ASTM D790 ISO 178
Flexural Stress					
--	10300	psi	71.0	MPa	ISO 178
Yield	10300	psi	71.0	MPa	ASTM D790
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact					
73°F (23°C)	1.1	ft·lb/in	59	J/m	ASTM D256
--	0.028	ft·lb/in²	0.059	kJ/m²	ISO 180/1A
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Rockwell Hardness (M-Scale)	45		45		ASTM D785
Pencil Hardness	F-2H		F-2H		ASTM D3363
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					
66 psi (0.45 MPa), Annealed [1]	192	°F	88.9	°C	ASTM D648
264 psi (1.8 MPa), Unannealed	174	°F	79.0	°C	ISO 75-2/A
264 psi (1.8 MPa), Annealed [1]	175	°F	79.4	°C	ASTM D648
Vicat Softening Temperature					
--	217	°F	103	°C	ASTM D1525 [2]
--	202	°F	94.4	°C	ASTM D1525 [3]
--	187	°F	86.0	°C	ISO 306/B50
Thermal Conductivity	1.4	Btu·in/hr/ft²/°F	0.20	W/m/K	ASTM C177

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Refractive Index [4]	1.490	1.490	ISO 489
Light Transmittance	92.0 %	92.0 %	ASTM D1003
Haze	< 2.00 %	< 2.00 %	ASTM D1003

Additional Information

SOLARKOTE™ Acrylic formulations are designed to effectively screen out high energy UV wavelength at 0.006" (6.0 mil) thickness.

Extrusion Notes

Recommended Drying Conditions: 180 °F (82 °C) for a minimum of 4 hours at -40°F (-40°C) dew point or < 0.06% moisture content.

Notes

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

[1] Annealing Cycle: 4 hrs @ 80 °C

[2] Rate A (50°C/h), Loading 1 (10 N)

[3] Rate A (50°C/h), Loading 2 (50 N)

[4] Method B

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