Lustran® ABS PG298

Acrylonitrile Butadiene Styrene

Styrolution

Message:

Lustran ABS PG 298 resin is a plateable grade of ABS (acrylonitrile butadiene styrene) for use in automotive and general-purpose applications. This injection molding grade was designed specifically for improved thermocycle performance and outstanding plate adhesion. It provides a unique combination of flow and rigidity, with increased scratch resistance and increased resistance to deformation on plating racks. The resin is available in gray color only.

Lustran ABS PG 298 resin is used in the automotive industry for plated grilles, wheel covers, exterior mirror housings, and exterior trim. It is also used for decorative parts in the appliance and lawn and garden markets. As with any product, use of Lustran ABS PG 298 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
UL YellowCard	E44741-633567		
Features	Good dimensional stability		
	Electroplateable		
	Good liquidity		
	Good adhesion		
	Scratch resistance		
	Medium hardness		
Uses	Application in Automobile Field		
	Automotive exterior parts		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Grey		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.06	g/cm³	ASTM D792
Specific Volume	0.940	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	19	g/10 min	ASTM D1238
230°C/3.8 kg	5.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.60	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Reduced Llandrage (R. Casta)	110		
ROCKWEIL HARDNESS (R-SCALE)	110		ASTIN D105
Mechanical	Nominal Value	Unit	Test Method
Mechanical Tensile Modulus	Nominal Value	Unit	Test Method ASTM D638
Mechanical Tensile Modulus1	Nominal Value 7580	Unit MPa	Test Method ASTM D638 ASTM D638
Mechanical 1 2 Rockweil Hardness (K-scale)	Nominal Value 7580 2770	Unit MPa MPa	Test Method ASTM D638 ASTM D638 ASTM D638 ASTM D638

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Yield	40.0	MPa	ASTM D638
Yield	43.0	MPa	ISO 527-2
Flexural Modulus			
3	12500	MPa	ASTM D790
4	2830	MPa	ASTM D790
	2730	MPa	ISO 178
Flexural Strength			ASTM D790
Yield ⁵	117	MPa	ASTM D790
Yield ⁶	78.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C, 3.18 mm	170	J/m	ASTM D256
-40°C ⁷	6.4	kJ/m²	ISO 180/1A
23°C ⁸	14	kJ/m²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.18mm	91.1	°C	ASTM D648
0.45 MPa, unannealed, 12.7mm, molded	103	°C	ASTM D648
0.45 MPa, annealed, 12.7mm	100	°C	ASTM D648
1.8 MPa, unannealed, 3.18mm	83.9	°C	ASTM D648
1.8 MPa, unannealed, 12.7mm, molded	98.3	°C	ASTM D648
1.8 MPa, annealed, 12.7mm	97.2	°C	ASTM D648
Vicat Softening Temperature			
Vicat Softening Temperature	110	°C	ASTM D1525 ⁹
Vicat Softening Temperature	110 36.6	°C	ASTM D1525 ⁹ ISO 306/B50
Vicat Softening Temperature Flammability	110 36.6 Nominal Value	°C °C Unit	ASTM D1525 ⁹ ISO 306/B50 Test Method
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm)	110 36.6 Nominal Value 48	°C °C Unit mm/min	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection	110 36.6 Nominal Value 48 Nominal Value	°C °C Unit mm/min Unit	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature	11036.6Nominal Value48Nominal Value	°C °C Unit mm/min Unit	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8	°C °C Unit mm/min Unit ℃	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7	°C °C Unit Mm/min Unit ℃ °C	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7	°C °C Unit mm/min Unit ℃	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0	°C °C Unit mm/min Unit °C °C °C hr	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B B	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0	°C °C Unit mm/min Unit C °C °C hr hr	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B Suggested Max Moisture	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0 < 0.10	°C °C Unit Unit Unit C °C °C hr hr hr	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B Suggested Max Moisture Suggested Shot Size	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0 < 0.10 50 - 75	°C °C Unit mm/min Unit °C °C °C hr hr hr %	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B Suggested Max Moisture Suggested Max Regrind	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0 < 0.10 50 - 75 20	°C ℃ Unit mm/min Unit ℃ ℃ ℃ % % %	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B Suggested Max Moisture Suggested Shot Size Suggested Max Regrind Rear Temperature	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0 < 0.10 50 - 75 20 243 - 252	°C ℃ Unit mm/min Unit Unit °C °C °C hr hr hr % % % %	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B Suggested Max Moisture Suggested Max Moisture Suggested Shot Size Suggested Max Regrind Rear Temperature Middle Temperature	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0 < 0.10 50 - 75 20 243 - 252 249 - 257	°C °C Unit mm/min Unit Unit °C °C °C % % % % % % % % % % % % %	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B Suggested Max Moisture Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature Front Temperature	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0 < 0.10 50 - 75 20 243 - 252 249 - 257 254 - 263	°C ℃ Unit mm/min Unit ℃ ℃ ℃ % % % % % % % % % % % % %	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685
Vicat Softening Temperature Flammability Burning Rate ¹⁰ (2.01 mm) Injection Drying Temperature A B Drying Time A B Suggested Max Moisture Suggested Max Moisture Suggested Shot Size Suggested Max Regrind Rear Temperature Hiddle Temperature Front Temperature Nozzle Temperature	110 36.6 Nominal Value 48 Nominal Value 82.2 - 87.8 71.1 - 76.7 2.0 4.0 < 0.10 50 - 75 20 243 - 252 249 - 257 254 - 263 254 - 263	°C ℃ Unit mm/min Unit Unit °C °C % % % % % % % % % % % % %	ASTM D1525 ⁹ ISO 306/B50 Test Method SAE J1685

Mold Temperature	48.9 - 60.0	°C		
Injection Pressure	68.9 - 110	MPa		
Injection Rate	Slow			
Back Pressure	0.345 - 0.689	MPa		
Clamp Tonnage	2.8 - 5.5	kN/cm ²		
Screw L/D Ratio	20.0:1.0			
Screw Compression Ratio	2.5:1.0			
Injection instructions				
Hold Pressure: 50 to 75% of Injection PressureScrew Speed: Moderate				
NOTE				
1.	Plated			
2.	Unplated			
3.	Plated			
4.	Unplated			
5.	Plated			
6.	Unplated			
7.	4x10 mm bar			
8.	4x10 mm bar			
9.	标准 B (120°C/h), 压 力1 (10N)			
10.	2x100x355 mm			

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