

## **INEOS Styrolution - Acrylonitrile Butadiene Styrene**

Wednesday, December 8, 2021

## **General Information**

#### **Product Description**

Lustran® PG298 resin is a grade of ABS (acrylonitrile butadiene styrene) for use in automotive and general-purpose applications. It provides a unique combination of flow and rigidity, with increased scratch resistance.

#### **FEATURES**

- SAE J1685: ABS0111
- · Plating grade
- · Improved thermocycle performance
- · Outstanding plate adhesion
- · Increased scratch resistance

#### **APPLICATIONS**

- Grills
- Wheel covers
- · Mirror housings
- · Appliance, lawn and garden

General			
Material Status	Commercial: Active		
Regional Availability	Latin America	North America	
Features	General Purpose	Good Adhesion	Good Scratch Resistance
Uses	<ul><li> Appliances</li><li> Automotive Applications</li></ul>	<ul><li>General Purpose</li><li>Lawn and Garden Equipment</li></ul>	
Agency Ratings	• SAE J1685		
Automotive Specifications	<ul> <li>CHRYSLER MS-DB-197 CPN2220 Color: Natural</li> <li>DAIMLER TRUCK 48-25358-003</li> <li>DELPHI DX300010</li> <li>FORD WSK-M4D806-A</li> </ul>	<ul> <li>FORD WSK-M4D836-A</li> <li>FORD WSS-M4D827-A3</li> <li>GM GMP.ABS.007</li> <li>GM GMW15572P-ABS-T1 Color: Q258</li> </ul>	<ul> <li>GM GMW15572P-ABS-T5</li> <li>HONDA HES C251-06 A-3-M</li> <li>SAE J1685 ABS0141</li> </ul>
Processing Method	Injection Molding		

ASTM & ISO Properties 1						
Physical	Typical Value	(English)	Typical Value	(SI)	Test Method	
Density / Specific Gravity	1.06		1.06		ASTM D792	
Melt Mass-Flow Rate (MFR)					ISO 1133	
220°C/10.0 kg	19	g/10 min	19	g/10 min		
230°C/3.8 kg	5.0	g/10 min	5.0	g/10 min		
Molding Shrinkage	0.40 to 0.70	%	0.40 to 0.70	%	ISO 294-4	
Water Absorption					ISO 62	
Saturation, 73°F (23°C)	1.0	%	1.0	%		
Equilibrium, 73°F (23°C), 50% RH	0.22	%	0.22	%		
Mechanical	Typical Value	(English)	Typical Value	(SI)	Test Method	
Tensile Stress (Yield, 73°F (23°C))	50.0	psi	0.345	MPa	ISO 527-2	
Tensile Strain (Yield, 73°F (23°C))	2.8	%	2.8	%	ISO 527-2	
Flexural Modulus (73°F (23°C))	392000	psi	2700	MPa	ISO 178	

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# Lustran® PG298

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Films	Typical Value	(English)	Typical Value	(SI)	Test Method
Tensile Modulus - MD	2800	psi	19.3	MPa	ISO 527-3
Impact	Typical Value	(English)	Typical Value	(SI)	Test Method
Charpy Notched Impact Strength					ISO 179
-22°F (-30°C)	4.8	ft·lb/in²	10	kJ/m²	
73°F (23°C)	10	ft·lb/in²	22	kJ/m²	
Thermal	Typical Value	(English)	Typical Value	(SI)	Test Method
Deflection Temperature Under Load <sup>2</sup>					
66 psi (0.45 MPa), Annealed	216	°F	102	°C	ISO 75-2/B
264 psi (1.8 MPa), Annealed	210	°F	99.0	°C	ISO 75-2/A
Vicat Softening Temperature	208	°F	98.0	°C	ISO 306/B50
CLTE - Flow	4.4E-5 to 6.1E-5	in/in/°F	8.0E-5 to 1.1E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity	1.2	Btu·in/hr/ft²/°F	0.17	W/m/K	ISO 8302

Processing Information						
Injection	Typical Value	(English)	Typical Value	(SI)		
Drying Temperature	176	°F	80	°C		
Drying Time	4.0	hr	4.0	hr		
Rear Temperature	473 to 491	°F	245 to 255	°C		
Middle Temperature	482 to 500	°F	250 to 260	°C		
Front Temperature	491 to 509	°F	255 to 265	°C		
Processing (Melt) Temp	500 to 536	°F	260 to 280	°C		
Mold Temperature	122 to 140	°F	50 to 60	°C		

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 4 h/80 °C

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