



## Terluran® GP-22

BASF Corporation - *Acrylonitrile Butadiene Styrene*

### Product Description

Terluran GP-22 is an easy flowing grade of ABS for injection molding with high resistance to impact and heat deflection.

### Product Characteristics

Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>
Availability	<ul style="list-style-type: none"> <li>North America</li> <li>Europe</li> </ul>
Test Standards Available	<ul style="list-style-type: none"> <li>ASTM</li> <li>ISO 10350</li> </ul>
Features	<ul style="list-style-type: none"> <li>Copolymer</li> <li>Flow, Good</li> <li>General Purpose</li> <li>Impact Resistance, High</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Telecommunications</li> <li>Housings</li> <li>Automotive Applications</li> <li>General Purpose</li> </ul>
Automotive Specifications	<ul style="list-style-type: none"> <li>FORD ESF-M4D241-B</li> <li>GM GMP.ABS.001</li> <li>FORD WSK-M4D827-A</li> <li>FORD ESF-M4D236-A</li> <li>CHRYSLER MSDB 200 CPN4030</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>
Multi-Point Data	<ul style="list-style-type: none"> <li>Creep Modulus vs. Time (ISO 11403-1)</li> <li>Isochronous Stress vs. Strain (ISO 11403-1)</li> <li>Isothermal Stress vs. Strain (ISO 11403-1)</li> <li>Secant Modulus vs. Strain (ISO 11403-1)</li> <li>Shear Modulus vs. Temperature (ISO 11403-2)</li> <li>Specific Volume vs Temperature (ISO 11403-2)</li> <li>Viscosity vs. Shear Rate (ISO 11403-2)</li> </ul>

### Properties <sup>1</sup>

Physical	Nominal Values (English)	Test Method
Density	1.04 g/cm <sup>3</sup>	ASTM D1505
Melt Volume-Flow Rate (MVR) (230°C/3.8 kg)	0.293 in <sup>3</sup> /10min	ASTM D1238

(220°C/10.0 kg)  
(200°C/5.0 kg)

1.22 in<sup>3</sup>/10min  
0.0976 in<sup>3</sup>/10min

<b>Mechanical</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Tensile Modulus <sup>2</sup>	341000 psi	ASTM D638
Tensile Strength @ Yield <sup>3</sup>	6530 psi	ASTM D638
Tensile Strength @ Break <sup>3</sup>	4930 psi	ASTM D638
Tensile Elongation @ Yld	2.6 %	ASTM D638
Flexural Modulus	334000 psi	ASTM D790
Flexural Strength <sup>4</sup>	9430 psi	ASTM D790
<b>Impact</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Notched Izod Impact (-40 °F, 0.125 in)	1.12 ft-lb/in	ASTM D256
(0 °F, 0.125 in)	1.87 ft-lb/in	
(73 °F, 0.125 in)	5.62 ft-lb/in	
<b>Hardness</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Rockwell Hardness (R-Scale)	103	ASTM D785
<b>Thermal</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
DTUL @264psi - Annealed (0.250 in)	210 °F	ASTM D648
DTUL @264psi - Unannealed (0.250 in)	172 °F	ASTM D648
DTUL @66psi - Annealed (0.250 in)	219 °F	ASTM D648
DTUL @66psi - Unannealed (0.250 in)	196 °F	ASTM D648
Vicat Softening Point (Rate A)	207 °F	ASTM D1525
<b>Ignition Characteristics</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Flame Rating - UL (0.0590 in, ALL)	HB	UL 94
(0.118 in, ALL)	HB	
(0.0310 in, ALL)	HB	
<b>UL 746</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Rel Temp Indx Mech w/oImp (0.0590 in)	203 °F	UL 746
(0.118 in)	203 °F	
(0.0310 in)	203 °F	
Rel Temp Indx Mech w/Imp (0.0310 in)	176 °F	UL 746
(0.0590 in)	176 °F	
(0.118 in)	176 °F	
Rel Temp Indx Elect (0.0310 in)	194 °F	UL 746
(0.0590 in)	194 °F	
(0.118 in)	194 °F	

### Processing Information

<b>Injection Molding Parameters</b>	<b>Nominal Values (English)</b>	<b>Test Method</b>
Drying Temperature	176 °F	
Drying Time	2.0 to 4.0 hr	
Suggested Max Regrind	20 %	
Processing (Melt) Temp	428 to 500 °F	
Mold Temperature	86.0 to 140 °F	

### Notes

- <sup>1</sup> Typical properties; not to be construed as specifications.
- <sup>2</sup> 0.125 in
- <sup>3</sup> Type I, 0.125 in
- <sup>4</sup> 0.125 in

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