

Technical Data

Product Description

Terluran GP-22 is an easy-flow, general purpose injection molding grade with high resistance to impact and heat distortion; intended for a wide range of applications, particularly in the housings sector.

General

Material Status	• Commercial: Active		
Literature ¹	<ul style="list-style-type: none"> • Technical Datasheet - ASTM (English) • Technical Datasheet - ISO (English) 		
Search for UL Yellow Card	<ul style="list-style-type: none"> • Styrolution • Terluran® 		
Availability	<ul style="list-style-type: none"> • Africa & Middle East • Asia Pacific 	<ul style="list-style-type: none"> • Central America • Europe 	<ul style="list-style-type: none"> • North America • South America
Features	<ul style="list-style-type: none"> • General Purpose • Good Colorability 	<ul style="list-style-type: none"> • Good Impact Resistance • Good Surface Finish 	<ul style="list-style-type: none"> • High Gloss • Medium Flow
Uses	<ul style="list-style-type: none"> • Appliances • Automotive Applications • General Purpose 	<ul style="list-style-type: none"> • Household Goods • Housings • Sanitary Products 	<ul style="list-style-type: none"> • Toys
Forms	• Pellets		
Processing Method	• Injection Molding		
Multi-Point Data	<ul style="list-style-type: none"> • Creep Modulus vs. Time (ISO 11403-1) • Isochronous Stress vs. Strain (ISO 11403-1) • Isothermal Stress vs. Strain (ISO 11403-1) 	<ul style="list-style-type: none"> • Secant Modulus vs. Strain (ISO 11403-1) • Shear Modulus vs. Temperature (ISO 11403-1) • Specific Volume vs Temperature (ISO 11403-2) 	<ul style="list-style-type: none"> • Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value Unit	Test Method
Specific Gravity	1.04 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR)		ASTM D1238
200°C/5.0 kg	1.5 g/10 min	
220°C/10.0 kg	19 g/10 min	
Melt Volume-Flow Rate (MVR)		ASTM D1238 ISO 1133
230°C/3.8 kg	4.80 cm ³ /10min	
220°C/10.0 kg	19.0 cm ³ /10min	
Molding Shrinkage		
Flow	0.55 %	ASTM D955
--	0.40 to 0.70 %	ISO 294-4
Water Absorption		
Saturation, 23°C	1.0 %	ASTM D570 ISO 62
Equilibrium, 23°C, 50% RH	0.22 %	ISO 62

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	2300 MPa	ASTM D638 ISO 527-2
Tensile Stress (Yield, 23°C)	45.0 MPa	ISO 527-2
Tensile Strain		
Yield, 23°C	2.6 %	ISO 527-2
Break	2.6 %	ASTM D638
Nominal Tensile Strain at Break (23°C)	10 %	ISO 527-2
Flexural Modulus	2300 MPa	ASTM D790
Flexural Strength	65.0 MPa	ASTM D790 ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179
-30°C	8.0 kJ/m ²	
23°C	22 kJ/m ²	
Charpy Unnotched Impact Strength		ISO 179
-30°C	100 kJ/m ²	
23°C	180 kJ/m ²	
Notched Izod Impact		
-30°C	59 J/m	ASTM D256
-18°C	100 J/m	ASTM D256
23°C	300 J/m	ASTM D256
-30°C	8.0 kJ/m ²	ISO 180/A
23°C	26 kJ/m ²	ISO 180/A
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	103	ASTM D785
Ball Indentation Hardness	97.0 MPa	ISO 2039-1
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed	90.6 °C	ASTM D648
0.45 MPa, Annealed	104 °C	ASTM D648
0.45 MPa, Annealed	99.0 °C	ISO 75-2/B
1.8 MPa, Unannealed	77.8 °C	ASTM D648
1.8 MPa, Annealed	98.9 °C	ASTM D648
1.8 MPa, Annealed	94.0 °C	ISO 75-2/A
Vicat Softening Temperature		
--	105 °C	ISO 306/A50
--	96.0 °C	ISO 306/B50
CLTE - Flow	0.000080 to 0.00011 cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.17 W/m/K	DIN 52612
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.0E+13 ohm	IEC 60093
Volume Resistivity		
--	> 1.0E+15 ohm·cm	ASTM D257
--	1.0E+15 ohm·cm	IEC 60093
Dielectric Constant		
1.00 mm, 1 MHz	2.80	ASTM D150
100 Hz	2.90	IEC 60250
1 MHz	2.80	IEC 60250
Dissipation Factor		IEC 60250
100 Hz	0.0048	
1 MHz	0.0079	
Optical	Nominal Value Unit	Test Method
Yellowness Index	13 YI	DIN 6167
Injection	Nominal Value Unit	
Drying Temperature	80.0 °C	
Drying Time	2.0 to 4.0 hr	
Processing (Melt) Temp	220 to 260 °C	
Mold Temperature	30.0 to 60.0 °C	

Injection Notes

Injection Velocity: 200 mm/s

Notes

- ¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- ² Typical properties: these are not to be construed as specifications.

Where to Buy

Supplier

Styrolution

Wyandotte, MI USA
Telephone: 734-324-6100
Web: <http://www.styrolution.com/>

Distributor

Amco Polymers LLC

Telephone: 800-262-6685
Web: <http://www.amcopolymers.com/>
Availability: North America

Channel Prime Alliance

Telephone: 800-247-8038
Web: <http://www.channelpa.com/>
Availability: North America

Entec Polymers

Telephone: 800-375-5440
Web: <http://www.entecpolymers.com/>
Availability: North America

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Availability: Canada

M. Holland Company

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Web: <http://www.mholland.com/>
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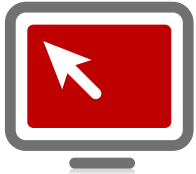
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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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