Terluran® GP-22

INEOS Styrolution - Acrylonitrile Butadiene Styrene

Thursday, January 23, 2025

General Information

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.

FEATURES

- Excellent colorability
- Medium flow
- Good impact resistance
- Good heat distortion resistance
- High quality surface finish and gloss
- Great mechanical strength and rigidity

APPLICATIONS

- Injection molding
- Appliance housings
- Household and sanitary appliances
- Toys
- Automotive components
- Consumer products

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• General Purpose • Good Colorability • Good Impact Resistance	• Good Rigidity • Good Surface Finish • High Gloss	• Medium Flow
Uses	• Appliances • Automotive Applications • Consumer Applications	• Household Goods • Housings • Sanitary Products	• Toys

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General	
Automotive Specifications	• BMW GS 93016 • CHRYSLER MS-DB-200 CPN4030 Color: Color As Noted On Drawing • DAIMLER DBL 5404 • FORD ESB-M4D483-A1 • FORD WSK-M4D827-A Color: Black • FORD WSK-M4D864-A3 • FORD WSS-M4D483-C1 • FORD WSS-M4D483-D1 • FORD WSS-M4D827-A3 • GM GMP.ABS.001 • GM GMP.ABS.002 • GM GMP.ABS.004 • GM GMW15572P-ABS-T1 • GM QK 002012 Color: Natural • PSA Peugeot-Citroën SPA X62 2108 • TOYOTA TSM 5512G • VOLKSWAGEN TL 527
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties [1]

Physical	Typical Value	(English)	Typical Value	(SI)	Test Method
Density	1.04	g/cm³	1.04	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	19	cm³/10min	19	cm³/10min	ISO 1133
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 Modulus	334000	psi	2300	MPa	ISO 527-1
Tensile Stress (Yield, 73°F (23°C))	6530	psi	45.0	MPa	ISO 527-2
Tensile Strain (Yield, 73°F (23°C))	2.6	%	2.6	%	ISO 527-2
Nominal Tensile Strain at Break					ISO 527-2
73°F (23°C)	10	%	10	%	
Flexural Stress (73°F (23°C))	9430	psi	65.0	MPa	ISO 178
Impact	**Typical Value**	**(English)**	**Typical Value**	**(SI)**	**Test Method**
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	3.8	ft·lb/in²	8.0	kJ/m²	
73°F (23°C)	10	ft·lb/in²	22	kJ/m²	
Charpy Unnotched Impact Strength					ISO 179/1eU
-22°F (-30°C)	48	ft·lb/in²	100	kJ/m²	
73°F (23°C)	86	ft·lb/in²	180	kJ/m²	
Notched Izod Impact Strength					ISO 180/A
-22°F (-30°C)	3.8	ft·lb/in²	8.0	kJ/m²	
73°F (23°C)	12	ft·lb/in²	26	kJ/m²	

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Hardness	Typical Value (English)		Typical Value (SI)		Test Method
Ball Indentation Hardness	14100	psi	97.0	MPa	ISO 2039-1
Thermal	**Typical Value (English)**		**Typical Value (SI)**		**Test Method**
Deflection Temperature Under Load [2]					
66 psi (0.45 MPa), Annealed	210	°F	99.0	°C	ISO 75-2/B
264 psi (1.8 MPa), Annealed	201	°F	94.0	°C	ISO 75-2/A
Vicat Softening Temperature					
--	205	°F	96.0	°C	ISO 306/B50
--	221	°F	105	°C	ISO 306/A50
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	DIN 52612
Electrical	**Typical Value (English)**		**Typical Value (SI)**		**Test Method**
Surface Resistivity	> 1.0E+14	ohms	> 1.0E+14	ohms	IEC 62631-3-1
Volume Resistivity	> 1.0E+14	ohms·cm	> 1.0E+14	ohms·cm	IEC 62631-3-1
Relative Permittivity					IEC 62631-2-1
100 Hz	2.90		2.90		
1 MHz	2.80		2.80		
Dissipation Factor					IEC 62631-2-1
100 Hz	4.8E-3		4.8E-3		
1 MHz	7.9E-3		7.9E-3		
Optical	**Typical Value (English)**		**Typical Value (SI)**		**Test Method**
Yellowness Index	13	YI	13	YI	DIN 6167

Processing Information

Injection	Typical Value (English)		Typical Value (SI)	
Drying Temperature	176	°F	80	°C
Drying Time	2.0 to 4.0	hr	2.0 to 4.0	hr
Processing (Melt) Temp	428 to 500	°F	220 to 260	°C
Mold Temperature	86 to 176	°F	30 to 80	°C
Injection Velocity	472	in/min	12	m/min

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 4 h/80 °C