

INEOS Styrolution - Acrylonitrile Butadiene Styrene

Wednesday, July 13, 2022

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



Automotive Specifications

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Ger	neral

- 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	Nominal Value	Unit	Test Method		
Density / Specific Gravity	1.04		ASTM D792		
Density	1.04	g/cm³	ISO 1183		
Apparent (Bulk) Density	0.55 to 0.65	g/cm³			
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) (230°C/3.8 kg)	4.8	cm ³ /10min	ASTM D1238		
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	19	cm ³ /10min	ISO 1133		
Molding Shrinkage - Flow	4.0E-3 to 7.0E-3	in/in	ASTM D955		
Molding Shrinkage	0.40 to 0.70	%	ISO 294-4		
Water Absorption (Saturation, 73°F)	1.0	%	ASTM D570		
Water Absorption (Saturation, 73°F)	1.0	%	ISO 62		
Water Absorption (Equilibrium, 73°F, 50% RH)	0.22	%	ISO 62		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	334000	psi	ASTM D638		
Tensile Modulus	334000	psi	ISO 527-1		
Tensile Strength (Yield, 73°F)	6520	psi	ASTM D638		
Tensile Stress (Yield, 73°F)	6530	psi	ISO 527-2		
Tensile Strain (Yield, 73°F)	2.6	%	ISO 527-2		
Tensile Elongation (Break)	2.6	%	ASTM D638		
Nominal Tensile Strain at Break (73°F)	10	%	ISO 527-2		
Flexural Modulus (73°F)	334000	psi	ASTM D790		
Flexural Strength (73°F)	9430	psi	ASTM D790		
Flexural Stress (73°F)	9430	psi	ISO 178		



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mpact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.8	ft-lb/in²	
73°F	10	ft-lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	48	ft-lb/in²	
73°F	86	ft-lb/in²	
Notched Izod Impact			ASTM D256
-22°F	1.1	ft-lb/in	
0°F	1.9	ft-lb/in	
73°F	5.6	ft-lb/in	
Notched Izod Impact Strength			ISO 180/A
-22°F	3.8	ft-lb/in²	
73°F	12	ft-lb/in²	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	103		ASTM D785
Ball Indentation Hardness	14100	psi	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	195	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Annealed)	219	°F	ASTM D648
Deflection Temperature Under Load ² (66 psi, Annealed)	210	°F	ISO 75-2/B
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	172	°F	
Deflection Temperature Under Load (264 psi, Annealed)	210	°F	ASTM D648
Deflection Temperature Under Load ² (264 psi, Annealed)	201	°F	ISO 75-2/A
Vicat Softening Temperature			
	205	°F	ISO 306/B50
	221	°F	ISO 306/A50
CLTE - Flow	4.4E-5 to 6.1E-5	in/in/°F	ISO 11359-2
Thermal Conductivity	1.2	Btu-in/hr/ft²/°F	DIN 52612
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+13	ohms	IEC 62631-3-1
Volume Resistivity	> 1.0E+13	ohms-cm	ASTM D257
Volume Resistivity	> 1.0E+15	ohms-cm	IEC 62631-3-1
Dielectric Constant (0.0394 in, 1 MHz)	2.80		ASTM D150
Relative Permittivity			IEC 62631-2-1
100 Hz	2.90		
1 MHz	2.80		
Dissipation Factor			IEC 62631-2-1
100 Hz	4.8E-3		
100112			
1 MHz	7.9E-3		



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Processing Information			
Injection	Nominal Value Unit		
Drying Temperature	176 °F		
Drying Time	2.0 to 4.0 hr		
Processing (Melt) Temp	428 to 500 °F		
Mold Temperature	86 to 176 °F		

Notes

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



² 4 h/80 °C