

# BASF Terluran® GP-22 (ABS)

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Easy-flow, general purpose injection moulding grade with high resistance to impact and heat distortion; intended for a wide range of applications, particularly in the housings sector.

Typical values at 23°C	Test method	Unit	Values
<b>1. Properties</b>			

Polymer abbreviation		-	ABS
Density	ISO 1183	g/cm <sup>3</sup>	1.04
Melt volume-flow rate MVR 220 °C / 10kg	ISO 1133	cm <sup>3</sup> /10min	19
Water absorption, equilibrium in water at 23°C	similar to ISO 62	%	1
Moisture absorption, equilibrium 23°C/50% r. h.	similar to ISO 62	%	0.22
Moulding shrinkage, free, longitudinal	-	%	0.4 – 0.7

<b>2. Flammability</b>			
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UL94 rating at 1.6mm thickness	<b>(E41871)</b>	UL 94	class	HB
Automotive materials (thickness d <sub>≥</sub> 1mm)		FMVSS 302	-	+

<b>3. Mechanical properties</b>			
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Tensile modulus	ISO 527-1/-2	MPa	2300
Yield stress ( 50 mm/min )	ISO 527-1/-2	MPa	45
Yield strain ( 50 mm/min )	ISO 527-1/-2	%	2.6
Nominal strain at break ( 50 mm/min )	ISO 527-1/-2	%	10
Flexural strength	ISO 178	MPa	65
Charpy impact strength (+ 23°C)	ISO 179/1eU	kJ/m <sup>2</sup>	180
Charpy impact strength (- 30°C)	ISO 179/1eU	kJ/m <sup>2</sup>	100
Izod notched impact strength (+ 23°C)	ISO 180/A	kJ/m <sup>2</sup>	26
Izod notched impact strength (- 30°C)	ISO 180/A	kJ/m <sup>2</sup>	8
Charpy notched impact strength (+ 23°C)	ISO 179/1eA	kJ/m <sup>2</sup>	22
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m <sup>2</sup>	8
Izod notched impact strength, method A (+23°C)	ASTM D 256	J/m	300
Ball indentation hardness at 358 N/30 s	ISO 2039-1	MPa	97

<b>4. Thermal properties</b>			
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HDT A (1.80 MPa) / HDT B ( 0.45 MPa )	ISO 75-1/-2	°C	80 / 92
Vicat softening temperature VST/A/50 / VST/B/50	ISO 306	°C	105 / 96
Max. service temperature (short cycle operation)	-	°C	80
Coefficient of linear therm. expansion, longit. (23-80)°C	ISO 11359-1/-2	10 <sup>-4</sup> /°C	0.8 – 1.1
Thermal conductivity	DIN 52612-1	W/(m·K)	0.17

<b>5. Electrical properties</b>			
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Relative permittivity at 100 Hz / 1 MHz	IEC 60250	-	2.9 / 2.8
Dissipation factor at 100 Hz / 1 MHz	IEC 60250	10 <sup>-4</sup>	48 / 79
Volume resistivity	IEC 60093	Ω · m	10 <sup>13</sup>
Surface resistivity	IEC 60093	Ω	10 <sup>13</sup>
Electric strength K20/P50, d = 0.6 - 0.8 mm	IEC 60243-1	kV/mm	37
CTI, test liquid A	IEC 60112	-	600
CTIM, test liquid B	IEC 60112	-	225

The figures in this datasheet are guide values. The values are effected by processing conditions, modifications, additives and environmental conditions and they do not release you from the obligation to check the validity and to undertake tests on your own.

This information is based on our present knowledge and experience. The material data is not to be construed as guaranteeing specific properties and the data can not be used to deduce the suitability for a particular application.