Terluran GP-22

Acrylonitrile Butadiene Styrene (ABS)

STYROLUTION
Driving Success. Together.

Technical Data Sheet

FEATURES

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

APPLICATIONS

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

Property, Test Condition	Standard	Unit	Values [2)]
Rheological Properties			
Melt Volume Rate, 200 °C/5 Kg	ISO 1133	cm³/10min	1.5
Melt Volume Rate 220 °C/10 Kg	ISO 1133	cm³/10min	19
Melt Flow Rate, 220 °C/10 Kg	ISO 1133	g/10 min	20
Mechanical Properties			
Impact Strength, Notched Izod, 4mm bar, 0.25mm Notch Radius, 23 °C	ISO 180	J/m	25
Impact Strength, Notched Izod, 4mm bar, 0.25mm Notch Radius, -30 °C	ISO 180	J/m	8
Charpy Notched, 23° C	ISO 179	kJ/m²	22
Charpy Notched, -30° C	ISO 179	kJ/m²	8
Charpy Unnotched, 23° C	ISO 179	kJ/m²	170
Charpy Unnotched, -30° C	ISO 179	kJ/m²	125
Tensile stress at yield, 23° C	ISO 527	MPa	45
Tensile strain at yield, 23° C	ISO 527	%	2.6
Tensile Modulus	ISO 527	MPa	2300

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Property, Test Condition	Standard	Unit	Values [2)]
Elongation at Break (MD)		%	10
Flexural Strength	ISO 178	MPa	65
Ball Indentation hardness H	ISO 2039-1	MPa	97
Thermal Properties			
Vicat Softening Temperature, A/2 (50°C/h, 50N)	ISO 306	°C	105
Vicat Softening Temperature, B/2 (120°C/h, 50N)	ISO 306	°C	96
Heat Deflection Temperature; (annealed) method Af, 1.8 MPa	ISO 75	°C	80
Heat Deflection Temperature; (annealed) method Bf, 0.45 MPa	ISO 75	°C	92
Linear Mold Shrinkage	ISO 294-4	mm/mm	0,4 - 0,7
Coefficient of Linear Thermal Expansion	ISO 11359	cm/cm-°C	80 - 110
Thermal conductivity	DIN 52612-1	W/(m K)	0.17
Electrical Properties			
Dielectric Constant (100 Hz)	IEC 60250	-	2.9

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Dissipation Factor (100 Hz)	IEC 60250	-	48
Dissipation Factor (1 MHz)	IEC 60250	-	79
Volume Resistivity	IEC 60093	Ohm*m	1E13
Surface Resistivity	IEC 60093	Ohm	1e+013
Other Properties			
Density	ISO 1183	kg/m3	1040
Water absorption saturated at 23°C	ISO 62	%	1
Yellowness Index	DIN 6167		13
Processing (Melt) Temperature	ISO 294	°C	220 - 260
Mold Temperature	ISO 294	°C	60
Injection velocity	ISO 294	mm/s	200
Drying Temperature		°C	80
Drying Time		hr	2 - 4

Footnotes
1) If product name or properties dont state otherwise.
3) The asterisk symbol * signifies inapplicable properties

Revision Date: 09/01/12

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SUPPLY FORM

Terluran® is delivered as spherical pellets. The bulk density of the pellets is from 0.55 to 0.65 g/cm³. Standard Packaging unit: 25 kg PE-bag on palette, shrunk or wrapped with PE film or delivery in silo trucks. PE bags should not be stored outside. In dry areas with normal temperature control, Terluran pellets can be stored for relatively long periods of time without any change in mechanical properties. Under poor storage conditions, Terluran absorbs moisture, but this can be removed by drying.

FOOD PRODUCT SAFETY

No adverse effects on the health of processing personnel have been observed if the products are correctly processed and the production areas are suitably ventilated. For styrene, acrylonitrile and 1,3-butadiene the maximum allowable workplace concentrations must be observed according to the pertaining national regulations. In Germany, the following limit values are valid (Oct. 2002): styrene, MAK-value: 20 ml/m³ = 86 mg/m³; acrylonitrile, TRK-value: 3 ml/m³ = 7 mg/m³ and 1,3-butadiene, TRK-value: 5 ml/m³ = 11 mg/m³. According to EU directive 67/548/EWG, Annex I and TRGS 905 (Oct. 2002), acrylonitrile and 1,3-butadiene are classified as carcinogenic, category 2 (´substances which should be regarded as if they are carcinogenic to man´) and 1 (substances known to be carcinogenic to man), respectively. Experience has shown that during appropriate processing of Terluran with suitable ventilation the values obtained are well below the limits mentioned above. TRGS 402 (Germany) can be used for determining and assessing the concentrations of hazardous substances in the air within working areas. Inhalation of gaseous degradation products, such as those which may arise on severe overheating of the material or during pumped evacuation, must be avoided. Further information can be found in our Terluran safety data sheets.

DISCLAIMER

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