

Terluran ECO GP-22 MR50

Mechanical Post Consumer Recycling Acrylonitrile Butadiene Styrene (rABS)

TECHNICAL DATASHEET

DESCRIPTION

Terluran® ECO GP-22 MR50 is a mechanical post consumer recycling (PCR) grade, with a PCR content of 50% in a standard black color. It combines easy-flow, high impact resistance and heat distortion with high quality surface finish; intended for a wide range of applications and visible parts.

FEATURES

- Medium flow
- Good impact resistance
- Good heat distortion resistance
- High quality surface finish and gloss
- Great mechanical strength and rigidity
- Standard black or dark grey color

APPLICATIONS

- Injection molding
- Appliance housings
- Household and electronics appliances
- Visible parts

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	19
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	18
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	7
Tensile Stress at Yield, 23 °C	ISO 527	MPa	35
Tensile Strain at Yield, 23 °C	ISO 527	%	2.6
Tensile Stress at Break, 23 °C	ISO 527	MPa	25
Tensile Strain at Break, 23 °C	ISO 527	%	8
Tensile Modulus	ISO 527	MPa	2100
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	95
Other Properties			
Density	ISO 1183	kg/m ³	1040
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7

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Property, Test Condition	Standard	Unit	Values
Melt Temperature Range	ISO 294	°C	220 - 260
Mold Temperature Range	ISO 294	°C	30 - 80
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4

SUPPLY FORM

Terluran® ECO 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 ECO pellets can be stored for relatively long periods of time without any change in mechanical properties. Under poor storage conditions, Terluran ECO absorbs moisture, but this can be removed by drying.

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 ECO 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 ECO safety data sheets.

DISCLAIMER

The above mentioned data are accurate to the best of our knowledge. They are based upon reputable labs and industry standard testing methods. These are only typical values and actual product specification may deviate at industrial range. Therefore, no data in this technical data sheet shall constitute a warranty or representation regarding product features, fitness of the product for a specific purpose or application or its processability. INEOS Styrolution disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.