TASNEE 100 BLACK POLYETHYLENE

DESCRIPTION

***TASNEE* 100 Black** is a High Density Polyethylene, black colored resin. The product is classified as PE-100.

***TASNEE* 100 Black** provides excellent environmental stress cracking resistance properties (ESCR) with very good long term hydrostatic strength and combines very high impact and stiffness properties.

TYPICAL APPLICATIONS

Gas & drinking water distribution, Industrial, Building & Construction; Sewage & drainage pipes.

TYPICAL PROPERTIES	METHOD	UNIT	VALUE
Physical			
Density	ISO 1183-1	g/cm^3	0.959
Melt Flow Rate (190°C /5.0 kg)	ISO 1133-1	g/10 min	0.23
Melt Flow Rate (190°C /21.6 kg)	ISO 1133-1	g/10 min	6.4
Mechanical			
Flexural Creep Modulus (4-point loading / 1 min)	DIN 16841	MPa	1100
Flexural Creep Modulus (4-point loading / 24 hr)	DIN 16841	MPa	560
Flexural Creep Modulus (4-point loading / 2000 hr)	DIN 16841	MPa	330
Tensile Modulus (23°C, v = 1 mm/min, Secant)	ISO 527-1, -2	MPa	900
Tensile Creep Modulus 1 hr /2 MPa	ISO 899-1	MPa	850
Tensile Creep Modulus 1000 hr / 2 MPa	ISO 899-1	MPa	360
Tensile Stress @ Yield (23°C, v = 50 mm/min)	ISO 527-1, -2	MPa	23
Tensile Strain @ Yield (23°C, v = 50 mm/min)	ISO 527-1, -2	%	9
Maximum Elongation TD	EN 638/ISO 6259-1/3	%	>350
MRS Classification	ISO 9080	MPa	10
Flexural Stress at 3.5% deflection	ISO 178	MPa	21
FNCT (4.0 MPa, 2% Arkopal N 100, 80 °C)	ISO 16770	hr	>1000
Impact			
Charpy Impact Strength-Notched @ 23°C	ISO 179/1eA	kJ/m^2	26
Charpy Impact Strength-Notched @ -30°C	ISO 179/1eA	kJ/m^2	13
Hardness			
Shore Hardness (Shore D, 3 sec)	ISO 868		63
Thermal			
Vicat Softening Temperature (B50 (50°C/hr, 50N))	ISO 306	°C	74
Oxidation Induction Time (OIT) (210°C)	ISO 11357-6	min	≥30
Additive			
Carbon Black Content	ISO 6964	%	2.25
Additional information			
Odour Threshold	EN 1622/EN 1420		< 2

Recommended Temperature: Melt temperature: 190–220 °C, Injection moulding temperatures: 200–280 °C.

Note: The above properties values are not to be construed as specification limits.

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User should determine the conditions necessary to obtain optimum product properties and suitability of the product for the intended application.

Health & Safety

The material is manufactured to the highest standards, but special requirements apply to certain applications, such as food contact end-use. For specific information on regulatory compliance contact your local representative.

Workers should be protected from the possibility of skin or eye contact with molten polymer. As minimum precaution, safety glasses and heat resistance gloves are suggested to prevent mechanical or thermal injury to eyes and hands. Molten polymer exceeding processing condition requirements may degrade and release, fumes, vapors and unpleasant odor. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes and vapors. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the material.
The material may burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the material generates considerable heat and may release a dense black smoke. Fires should be extinguished by heavy foams or dry powder. For further information about safety in handling and processing please refer to the Safety Data Sheet (SDS).

Storage

The material is packed in 25 kg bags or in bulk containers protecting it from contamination. Storage time of material longer than 6 months may have a negative influence on the quality of the final product. It is generally recommended to convert all materials latest within 6 months from delivery date. The material is subjected to degradation by ultra-violet radiation or by high storage temperatures. Therefore the material must be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity during storage. Further unfavorable storage conditions are large fluctuations in ambient temperature and high atmospheric humidity. Due to the hygroscopic character of the carbon black pigments, black colored materials may pick up moisture even under appropriate storage conditions. These conditions may lead to moisture condensing inside the packaging. Under these circumstances, it is recommended to dry the material before use. After a storage period of more than 3 months, drying of such material is recommended as standard practice. TASNEE will not give any warranty to unfavorable storage conditions which may lead to quality deterioration such as color change, bad smell and inferior product performance.

Disclaimer

"The information and data contained in this document is submitted without prejudice, and is based on our current knowledge, experience and on a limited number of tests". "In view of the many factors that may affect processing and application, these data do not relieve the receiver of this information from the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties nor of suitability for a specific purpose of the products made with or on the basis of the information in this document".

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