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, water distribution, sewage and drainage pipes.

Typical Properties

Physical	Method	Unit	Value
Density	ISO 1183	g/cm3	0.959
Melt Flow Rate (190°C /5kg)	ISO 1133	g/10 min	0.23
Melt Flow Rate (190°C /21.6kg)	ISO 1133	g/10 min	6.4
Staudinger Index Jg	ISO 1628	ml/g	380
Vicat Softening Temperature(VST/B/50 K/h (50N))	ISO 306	°C	74

Mechanical	Method	Unit	Value
Tensile Modulus (23°C, v = 1mm/min, Secant)	ISO 527-1, -2	MPa	900
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
Tensile Creep Modulus 1h [Test stress in MPa]	ISO 899-1	MPa	850 [2.0]
Tensile Creep Modulus 1000h [Test stress in MPa]	ISO 899-1	MPa	360 [2.0]
Maximum Elongation TD	EN 638	%	>350
MRS Classification	ISO/TR 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	h	>1000
Flexural Creep Modulus	DIN 19537-2		
(4 Point loading method, 1 min-value)		MPa	1100
(4 Point loading method, 24 h-value)		MPa	560
(4 Point loading method, 2000 h-value)		MPa	330
Charpy Notched Impact Strength	ISO 179		
(23°C)		kJ/m2	26
(-30°C)		kJ/m2	13
Shore Hardness (Shore D (3 sec))	ISO 868		63
Oxidation Induction Time (OIT) (210°C)	EN 728	min	30
Carbon Black Content	ISO 6964	%	2.25
Odour Treshold	EN 1622 / EN 1240		< 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 specifications.

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Food Contact

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, please contact TASNEE below or our local representative in your area.

Safety

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 Material Safety Data Sheet (MSDS).

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 publication 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 publication".

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