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Technical data sheet

ERACLENE ®

SB 60

HDPE

High density polyethylene

Eraclene SB 60 is a high-density polyethylene with medium-high molecular weight, hexene copolymer, obtained with the gas phase process.
This polymer is appreciated for its white color, excellent workability, high thermal stability, excellent rigidity, low permeability to water vapor, good weldability and high resistance at low temperatures.

Main Application

Eraclene SB 60 is recommended for the production of extruded sheets to be used as semi finished items for thermoforming and protection profiles for metallic parts. The excellent wear resistance properties and low friction allow Eraclene SB 60 to be used for the preparation of technical products. Thanks to high noise absorption, the sheets produced by Eraclene SB 60 can be used as acoustic insulator for barrier construction.

Main Properties

Resin Properties	**Value**	**Unit**	**Test Method**
Melt Flow Rate (190 °C/2,16 kg)	-	g/10min	ISO 1133
Melt Flow Rate (190 °C/5 kg)	0,4	g/10min	ISO 1133
Melt Flow Rate (190 °C/21,6 kg)	10	g/10min	ISO 1133
Density	0,948	g/cm3	ISO 1183
Melting point	130	°C	Internal method
Brittleness temperature	< -60	°C	ASTM D 746
Vicat softening point (1 kg)	125	°C	ISO 306/A

Mechanical Properties *	**Value**	**Unit**	**Test Method**
Tensile stress at yield	22	MPa	ISO 527
Tensile stress at break	31	MPa	ISO 527
Tensile strain at yield	-	%	ISO 527
Elongation at break	> 800	%	ISO 527
Flexural modulus	900	MPa	ISO 178
Hardness Shore D	61	-	ISO 868 A
Falling Weight	-	J	ISO 6603-2
Izod impact strength, notched	260	J/m	ASTM D 256
Environmental Stress Cracking Resistance (ESCR)	-	h	ASTM D 1693 (B)

(*) Values are referred to compression moulded specimens. Actual properties are typical and may vary depending upon operating conditions.

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Processing notes

Eraclene SB 60 can be easily extruded. Due to its high flowability (low viscosity at high shear rates) Eraclene SB 60 exhibits low energy consumption and good extrusion output. The recommended temperature profile is between 200 °C and 230 °C.

Storage and Handling

Eraclene SB 60 is supplied in pellet form. This material may readily be conveyed and bulk fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping should be practised throughout your facility.
The product should be stored in dry conditions at temperatures below 50 °C and protected from sunlight.
Improper storage can initiate degradation which results in odour generation, colour changes and can have negative effects on the physical properties of the product.
Before using this product it is recommended to read and understand the relevant Safety Data Sheet.

Availability

Contact the Versalis sales office nearest to you regarding availability and your specific application requirements.

Food Contact Status

Eraclene SB 60 complies with the rules and regulations of the European Union, as well as other countries, regarding the use of plastic materials in food contact applications. Certificates of compliance are available upon request.

Technical Management Polyethylene

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IMPORTANT: please consult the relevant safety data sheet for more detailed information. The information and data presented herein are to the best of our knowledge true and accurate but no warranty or guarantee, expressed or implied, is made nor is any liability accepted with respect to the use of such information and data. Versalis is available to provide the guaranteed values for each product on demand.
DISCLAIMER: it is the sole responsibility of the end-user to determine the safety, the regulatory compliance as well as the technical suitability of the product for the intended application. The product is not intended for use in medical devices and pharmaceutical applications; Versalis declines all responsibility and cannot be held liable in case of use in the above mentioned applications.

January 2023