



TECHNICAL DATA SHEET

Product Name



Product Type

High Strength Polyethylene for Extrusion Blow Molding

Product Grade

SMX551BU

Product Description

SMX551BU is a high strength polyethylene produced by SMX™ technology suitable for Intermediate Bulk Containers. This grade provides high melt strength for good processing performance, very low odor and fuming and excellent chemical resistance with superior stiffness.

Typical Application

- Bulk liquid containers
- Hazardous chemicals containers

Product Characteristics

- High melt strength
- Excellent impact strength at low temperature
- Excellent combination of stiffness and impact strength
- Excellent chemicals resistance
- UV stabilization

International Compliance

- U.S FDA 21 CFR 177.1520
- Regulation (EU) No.10/2011
- Packaging and Packaging waste directive 94/62/EC / CONEG

Physical Properties

Property	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190°C, 2.16 kg	0.05	g/10 min
	ASTM D 1238 @ 190°C, 21.6 kg	5.80	g/10 min
Density (anneal 100 °C)	ASTM D 1505	0.946	g/cm ³
Vicat Softening Point	ASTM D 1525	124	°C
Deflection Temperature (at 0.46 MPa)	ASTM D 648	59	°C
Tensile Strength at Yield	ASTM D 638	212	kg/cm ²
Tensile Strength at Break	ASTM D 638	382	kg/cm ²
Elongation at Break	ASTM D 638	882	%
Flexural Modulus	ASTM D 790	7200	kg/cm ²
Notched Izod Impact	ASTM D 256 @ 23°C	530	J/m
Brittleness Temperature	ASTM D 746	<-60	°C
ESCR	ASTM D 1693 @ 50°C (Condition B, F50, 10% Igepal)	>8000	hrs
Hardness Shore D	ASTM D 2240	65	-

Note: The given values are typical value measured on the product. Values herein are not to be constructed as a product specification.



TECHNICAL DATA SHEET

Product Name



Product Type

High Strength Polyethylene for Extrusion Blow Molding

Product Grade

SMX551BU

Processing Guidelines

Recommended processing conditions:

The actual extrusion condition depends on type of using machine, size and wall thickness of product required.

Generally, Melt temperature should be 190-200°C, 4-8 bar of blowing pressure is recommended.

Product Technical Assistance

For technical assistance or further information on this product or any other SCG Chemicals' products contact your SCG Chemicals technical service at the address or telephone number as specified below.

Product Available Form

- Pellet

Product Packaging

- 25 kg loose bag
- 25 kg stretch wrap palletized
- 750 kg big bag
- Tank car

Storage

- Store in original container in tidy according to the manual of Handling and Storage from Thai Polyethylene Company Limited.
- Product(s) should be stored in dry and dust free location at temperature below 50°C and protected from direct sunlight and/or heat, well-ventilated area, away from incompatible materials and food and drink, as this may lead to quality deterioration, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.
- Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- The storage area should be stable and not be sloped.

Safety

- The product is not classified as a hazardous material.
- Please see our Material Safety Data Sheet for details on various aspects of safety, recovery, and disposal of the products; for more information, contact your technical service



TECHNICAL DATA SHEET

Product Name



Product Type

High Strength Polyethylene for Extrusion Blow Molding

Product Grade

SMX551BU

Recycling

- The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.
- Please see our Material Safety Datasheet for details on various aspects of safety, recovery and disposal of the products; for more information, contact your technical service.

Related Documents

- The latest version of this document will be available at our website, www.scgchemicals.com, or can be obtained from the technical service.
- The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.
 - Material Safety Datasheet
 - Statement on compliance to food contact regulation.

Disclaimer

- The Applications specified herein is for reference only.
- It is customer's responsibilities to inspect and test the product for suitability of the customer's own use and purpose. The customer is responsible for appropriate, safe, legal use, processing and handling of the product.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. We however do not assume any liability whatsoever for the accuracy and completeness of the information contained herein.
- We make no warranties which extend beyond the description herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
- No liability can be accepted in respect of the use of the product in conjunction with other materials. The information contained herein relates exclusively to the product when it is not used in conjunction with any third party's materials