

Product Description

EL-Lene H455JA is a high density polyethylene resin with good processability, mechanical property, and excellent organoleptic property. It is particularly designed for injection molding and continuous compression molding of caps and closures for the packaging beverages.

Typical Application

Product Characteristics

Beverage caps and closures

- Still and mineral water
- Juice and tea
- Good processability
- Good mechanical property
- Excellent organoleptic property
- Food contact applicable (complies with US FDA 21 CFR 177.1520 Olefin Polymers (c) 2.1 and Commission Regulation (EU) no. 10/2011)

Physical Properties

Property	Test Method	Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	4.5	g/10 min
Density	ASTM D 1505	0.961	g/cm ³
Tensile Strength at Yield	ASTM D 638 @ Crosshead speed 50 mm/min	280	kg/cm ²
Tensile Strength at Break	ASTM D 638 @ Crosshead speed 50 mm/min	250	kg/cm ²
Elongation at Break	ASTM D 638 @ Crosshead speed 50 mm/min	1,250	%
Flexural Modulus	ASTM D 790	12,500	kg/cm ²
Notched Izod Impact	ASTM D 256 @ 23 °C	4	kg.cm/cm
Hardness	ASTM D 2240	66	Shore D
ESCR	ASTM D 1693 @ 50 °C (Condition B, Compression Molded, 10% Igepal)	7	hrs, F ₅₀
Melting Point	ASTM D 2117	132	°C
Heat Deflection Temperature (HDT)	ASTM D 648 @ 4.6 kg/cm ²	84	°C
% Shrinkage (2mm) MD	TPE Method	2.06	%
TD	TPE Method	2.11	%

Note : Conversion factor for changing unit from kg/cm² to MPa is divided by 10.20

Processing Techniques

The actual processing condition depends on each machine type, product size, mold design. Generally, melt temperature should be 190-230 deg.C for injection molding and 160-190 deg.C for continuous compression molding. The exceed melt temperature than 250 deg.C might effect organoleptic property.

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	Product Packaging
<ul style="list-style-type: none"> ■ Pellet 	<ul style="list-style-type: none"> ■ 25 kg loose bag ■ 25 kg stretch wrap palletized ■ 750 kg big bag ■ Seabulk container

SCG Performance Chemicals Company Limited

1 Siam Cement Road, Bangsue, Bangkok, 10800 Thailand.

Tel. +66 2586 1118 Fax +66 2586 3676 E-mail: rigid_pkg@scg.co.th

www.scgchemicals.co.th

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Storage

- Store in original container in tidy according to the manual of Handling and Storage from Thai Polyethylene Company Limited/Thai Polypropylene 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.
- The storage area should be stable and not be slopped.

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 SCG Plastics/SCG Performance Chemicals technical service.

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 Data Sheet for details on various aspects of safety, recovery and disposal of the products; for more information, contact your SCG Plastics/SCG Performance Chemicals technical service.

Related Documents

- The lastest version of this document will be available at our website, www.chemicals.scg.co.th, or can be obtained from the SCG Plastics/SCG Performance Chemicals 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 Data Sheet
 - Statement on compliance to food contact regulations

Disclaimer

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

EL-Lene™ EL-Pro™ EL-Wax™



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