

**ERACLENE[®]**

HDPE

BC 86

High density polyethylene

Eraclene BC 86 is a high density polyethylene resin (HDPE), with antioxidants, suitable for blow moulding application. It is especially recommended for the production of containers up to 20 liters. Eraclene BC 86 combines excellent stress cracking resistance with good rigidity and high impact strength.

This resin is characterized by a broad molecular weight distribution which balances overall performances with ease of processing.

Main applications

Eraclene BC 86 is used to produce blow moulded containers to package household and industrial chemicals (detergents, perfumed bleaches, softener), cosmetics (shampoos, creams, lotions, etc.), health and medical aids, fertilizers, adhesives and pesticides. Eraclene BC 86 can be extruded into profiles and sheets.

Main properties

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	0.2
Melt Flow Rate (190 °C/ 5 kg)	ISO 1133	g/10min	0.8
Melt Flow Rate (190 °C/ 21.6 kg)	ISO 1133	g/10min	21
Density	ISO 1183	g/cm ³	0.953
Melting point	Internal method	°C	135
Brittleness point	ASTM D 746	°C	< - 60
Vicat softening point (1 kg)	ISO 306/A	°C	125

Mechanical Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527	MPa	27
Tensile strenght at break	ISO 527	MPa	30
Elongation at break	ISO 527	%	> 600
Flexural modulus	ISO 178	MPa	1200
Izod impact strength, notched	ISO 180/A	J/m	180
Hardness Shore D	ISO 868/A		64
Environmental Stress Cracking Resistance (ESCR)	ISO 22088	h	> 500

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

Processing conditions

Eraclene BC 86 can be processed in high speed blow moulding machines with excellent results. Moulded parts exhibit outstanding surface quality.

Typical Moulding Conditions:

This material, when properly converted, allows obtaining a finished item having excellent final properties. Such properties depend from an adequate item design and by the thickness distribution along the walls. Suggested temperatures to obtain such results are the following:

Barrel Zone 1 Temperature Setting (°C) 170°-180

Barrel Zone 2 Temperature Setting (°C) 185-195

Head and Die Temperature Setting (°C) 185-195

Stock Temperature (°C) 195-205

Storage and handling

Eraclene BC 86 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 be practised throughout your facility.

Stored in an airy and dry room, at temperatures between 20°C and 30°C, with no direct sunlight, the shelf life is about 18 months. However, before using this product, read and understand the relevant POLIMERI EUROPA Safety Data Sheet.

Availability

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

Food contact status

Eraclene BC 86 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.

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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.

Polimeri europa is available to provide the guaranteed values for each product on demand.