

**ERACLENE[®]**

HDPE

MP 90 C

High density polyethylene

Eraclene MP 90 C is a gas phase high density polyethylene homopolymer resin (HDPE) with antioxidants, suitable for injection moulding application. This grade has a narrow molecular weight distribution and a high density that make it ideally for injection moulding applications where outstanding rigidity, warp resistance and toughness are required. The polymer has high purity and high thermal stability during extrusion.

Main applications

Eraclene MP 90 C has controlled organoleptic properties for the production of caps for PET bottles used for natural mineral water, fruit juice, etc.
Eraclene MP 90 C is suitable to produce moulded crates with requiring rigidity.

Main properties

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	7.5
Melt Flow Rate (190 °C/ 5 kg)	ISO 1133	g/10min	20
Melt Flow Rate (190 °C/ 21.6 kg)	ISO 1133	g/10min	-
Density	ISO 1183	g/cm ³	0.960
Melting point	Internal method	°C	137
Brittleness point	ASTM D 746	°C	< - 60
Vicat softening point (1 kg)	ISO 306/A	°C	128

Mechanical Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527	MPa	30
Tensile strenght at break	ISO 527	MPa	17
Elongation at break	ISO 527	%	400
Flexural modulus	ISO 178	MPa	1450
Izod impact strength, notched	ISO 180/A	J/m	100
Hardness Shore D	ISO 868/A		69
Environmental Stress Cracking Resistance (ESCR)	ISO 22088	h	-

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

Processing conditions

Eraclene MP 90 C is readily processable by conventional injection moulding equipment with excellent results.

Typical processing conditions (*)

Temperature profile of the barrel (°C) 190 - 260

Temperature of the mould (°C) 10 - 40

(*) Processing conditions are depending on several parameters: the shape of the part to be manufactured, the localisation of the injection point, the injection moulding machine and the cooling of the mould.

Storage and handling

Eraclene MP 90 C 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 MP 90 C 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.