

**ERACLENE[®]**

HDPE

MS 80 U

High density polyethylene

Eraclene MS 80 U is a gas phase high density polyethylene resin (HDPE) with antioxidants, suitable for injection moulding application.

This grade has a narrow molecular weight distribution and a high fluidity make it ideally for injection moulding applications.

The polymer has high thermal stability during extrusion and a good balance between fluidity and mechanical properties.

Main applications

Eraclene MS 80 U is an injection moulding grade designed for thin-walled (food containers) aerosol caps.

Main properties

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	27
Melt Flow Rate (190 °C/ 5 kg)	ISO 1133	g/10min	-
Melt Flow Rate (190 °C/ 21.6 kg)	ISO 1133	g/10min	-
Density	ISO 1183	g/cm ³	0.955
Melting point	Internal method	°C	135
Brittleness point	ASTM D 746	°C	< - 60
Vicat softening point (1 kg)	ISO 306/A	°C	126

Mechanical Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527	MPa	27
Tensile strenght at break	ISO 527	MPa	10
Elongation at break	ISO 527	%	100
Flexural modulus	ISO 178	MPa	1300
Izod impact strength, notched	ISO 180/A	J/m	40
Hardness Shore D	ISO 868/A		66
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 MS 80 U 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 MS 80 U 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 MS 80 U 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 SERVICE

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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.