



versalis

Technical Data Sheet

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 Application

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

Main Properties

Resin Properties

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

Mechanical Properties *

	Value	Unit	Test Method
Tensile stress at yield	27	MPa	ISO 527
Tensile strenght at break	10	MPa	ISO 527
Elongation at break	100	%	ISO 527
Flexural modulus	1300	MPa	ISO 178
Hardness Shore D	66	-	ISO 868 A
FallingWeight:	-	J/mm	ISO 6603/2
Izod impact strength, notched	40	J/m	ISO 180/A
Environmental Stress Cracking Resistance (ESCR)	-	h	ISO 22088



Processing notes

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

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.

The product should be stored in dry conditions at temperatures below 50°C and protected from sunlight.

Improper storage can initiate degradation which results in odour generation, colour changes and can have negative effects on the physical properties of the product.

Before using this product it is recommended to read and understand the relevant Safety Data Sheet.

Availability

Contact the Versalis 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.

