



versalis

Technical Data Sheet

CLEARFLEX®

VLDPE

MP D0

Very low density polyethylene

Clearflex MP D0 is a linear polyethylene with antioxidants, characterised by a very low density (VLDPE). The resin shows an excellent balance between flexibility and impact resistance.

Main Application

Clearflex MP D0 is suitable for injection moulding. Manufactures made by Clearflex MP D0 are characterised by a high flexibility. Clearflex MP D0 is recommended for seals and gaskets, for blend with polyolefins to modify and improve impact resistance.

Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	7.5	g/10min	ISO 1133
Melt Flow Rate (190 °C/5 kg)	-	g/10min	ISO 1133
Melt Flow Rate (190 °C/21.6 kg)	-	g/10min	ISO 1133
Density	0.900	g/cm ³	ISO 1183
Melting point	113	°C	Internal method
Brittleness temperature	<- 70	°C	ASTM D 746
Vicat softening point (1 kg)	60	°C	ISO 306/A

Mechanical Properties *	Value	Unit	Test Method
Tensile stress at yield	5	MPa	ISO 527
Tensile stress at break	13	MPa	ISO 527
Tensile strain at yield	-	%	ISO 527
Elongation at break	750	%	ISO 527
Flexural modulus	60	MPa	ISO 178
Hardness Shore D	28	-	ISO 868 A
Falling Weight:	-	J/mm	ISO 6603-2
Izod impact strength, notched	-	J/m	ISO 180/A
Environmental Stress Cracking Resistance (ESCR)	-	h	ASTM 1693/B

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



Processing notes

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

Typical processing conditions:

Temperature profile of the barrel (°C) 160 - 200

Temperature of the mould (°C) 10 - 40.

Storage and Handling

Clearflex MP D0 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 should 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

Clearflex MP D0 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.

