

Technical data sheet

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CLEARFLEX®

VLDPE

MQ F0

Very low density polyethylene

Clearflex MQ F0 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 MQ F0 is suitable for injection moulding. Manufacts made by Clearflex MQ F0 are characterised by a high flexibility. Clearflex MQ F0 is recommended for seals and gaskets, for blend with polyolefins to modify and improve impact resistance.

Main Properties

Resin Properties Melt Flow Rate (190 °C/2,16 kg) Melt Flow Rate (190 °C/5 kg) Melt Flow Rate (190 °C/21,6 kg) Density	Value 13 - - 0,895	Unit g/10min g/10min g/10min g/cm3	Test Method ISO 1133 ISO 1133 ISO 1133 ISO 1133 ISO 1183
Melting point Brittleness temperature Vicat softening point (1 kg)	111 < -70 51	°C °C ℃	Internal method ASTM D 746 ISO 306/A
Mechanical Properties * Tensile stress at yield Tensile stress at break Tensile strain at yield	Value 4 9 -	Unit MPa MPa %	Test Method ISO 527 ISO 527 ISO 527
Elongation at break Flexural modulus Hardness Shore D Falling Weight Izod impact strength, notched	750 45 26 -	% MPa - J J/m	ISO 527 ISO 178 ISO 868 A ISO 6603-2 ASTM D 256
Environmental Stress Cracking Resistance (ESCR)	-	h	ASTM D 1693 (B)

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

Processing notes

Clearflex MQ B0 is readily processable by conventional injection moulding equipment with excellent results. Typical processing conditions: **

Temperature profile of the barrel	(°C)	160 - 200
Temperature of the mould	(°C)	10 - 40
	(0)	10 10

(**) 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

Clearflex MQ F0 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 MQ F0 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 Management Polyethylene

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

DISCLAIMER: it is the sole responsibility of the end-user to determine the safety, the regulatory compliance as well as the technical suitability of the product for the intended application. The product is not intended for use in medical devices and pharmaceutical applications; Versalis declines all responsibility and cannot be held liable in case of use in the above mentioned applications.