versalis

Technical Data Sheet

www.versalis.eni.com info.polyethylene@versalis.eni.com

FLEXIRENE ®

MS 20 U

LLDPE

Linear low density polyethylene

Flexirene MS 20 U is a linear low density polyethylene (LLDPE) with antioxidants, suitable for injection moulding application.

Parts made by Flexirene MS 20 U are characterised by optimum low temperature properties.

Main Application

Flexirene MS 20 U is recommended for the production of lids, caps and closures for chemical products and containers, and is suggested for low temperature applications. Flexirene MS 20 U is characterised by a high flowability which makes it ideal for masterbatches preparation for LDPE and LLDPE.

Main Properties

Resin Properties	Value	Unit	Test Method
Melt Flow Rate (190 °C/2.16 kg)	26	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	0.921	g/cm3	ISO 1183
Melting point	116	°C	Internal method
Brittleness temperature	<- 70	°C	ASTM D 746
Vicat softening point (1 kg)	88	°C	ISO 306/A

Mechanical Properties *	Value	Unit	Test Method
Tensile stress at yield	9	MPa	ISO 527
Tensile stress at break	10	MPa	ISO 527
Tensile strain at yield	-	%	ISO 527
Elongation at break	> 400	%	ISO 527
Flexural modulus	150	MPa	ISO 178
Hardness Shore D	48	-	ISO 868 A
Falling Weight:	-	J	ISO 6603-2
Izod impact strength, notched	-	J/m	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.

Flexirene ® is a registered trademark of versalis

Manufacturer website: https://www.versalis.eni.com/

Processing notes

Flexirene MS 20 U is easy to mould with the newest injection moulding machines. Results are excellent.
Typical processing conditions (*)
Temperature profile of the barrel (°C) 160 - 210
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

Flexirene MS 20 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 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

Flexirene MS 20 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 Management Polietilene and Client Relationship

Center and South Europe and Americas

Versalis S.p.A.

Head Office
Piazza Boldrini, 1
20097 San Donato Milanese (MI) - Italy
tel. +39 02 52032087 + 39 02 52032190
tel. +39 02 52042005 + 39 02 52032319

Mantova
Via Taliercio 14 - 46100 Mantova (MN) - Italy
tel. +39 03 76305520 +39 03 76305741

North Europe and ROW

Versalis S.p.A.

4531 Route des Dunes - CS 20060 Mardyck 59279
Dunkerque - France
tel. +33 328235516

Duesseldorfer Str. 13
65760 Eschborn – Deutschland
tel +49 6196492249

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.

Manufacturer website: https://www.versalis.eni.com/