



versalis

Technical Data Sheet

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FLEXIRENE®

MS 40 DA

LLDPE

Linear low density polyethylene

Flexirene MS 40 DA is a linear low density polyethylene (LLDPE) with antioxidants, suitable for injection moulding application.

Parts made by Flexirene MS 40 DA are characterised by a good balance between impact resistance and rigidity. Flexirene MS 40 DA is highly pure and it is suitable for all applications where good organoleptic properties are required.

Main Application

Flexirene MS 40 DA is recommended for the production of caps, closures, large sized articles, houseware and toys.

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	0.930	g/cm ³	ISO 1183
Melting Point	121	°C	Internal method
Brittleness temperature	< - 70	°C	ASTM D 746
Vicat softening point (1 kg)	103	°C	ISO 306/A

Mechanical Properties *	Value	Unit	Test Method
Tensile stress at yield	11	MPa	ISO 527
Tensile strenght at break	12	MPa	ISO 527
Elongation at breack	> 500	%	ISO 527
Flexural modulus	300	MPa	ISO 178
Hardness Shore D	52	-	ISO 868 A
FallingWeight:	-	J/mm	ISO 6603/2
Izod impact strength, notched	-	J/m	ISO 180/A
Environmental Stress Cracking Resistance (ESCR)	-	h	ISO 22088

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

Processing notes

Flexirene MS 40 DA 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

Storage and Handling

Flexirene MS 40 DA 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

Flexirene MS 40 DA 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.

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