PRODUCT DATA SHEET

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Low Density Polyethylene

LF2103

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Melt Index: 0.33 g/10min

Density: 0.921 g/cm^3

Features
- Tubular Resin
- Good mechanical properties
- Wide processing range

Applications
- Blow moulded bottles and tubes
- General purpose low pressure pipe
- Extruded profiles

Additives
- Antioxidant

Typical properties (not to be construed as specifications)		Value (SI)	Value (English)	Method
Resin Properties	Melt Index (190°C/2.16kg)	0.33 g/10min	0.33 g/10min	ASTM D1238
	Nominal density	0.921 g/cm^3	0.921 g/cm^3	ASTM D1505
Product Properties	Tensile strength at yield	12 MPa	1740 psi	ASTM D638[1)]
	Tensile strength at break	16 Mpa	2320 psi	ASTM D638[1)]
	Elongation at break	650 %	650 %	ASTM D638[1)]
	Flexural modulus	250 MPa	36250 psi	ASTM D790
	ESCR F_{50}	80 hr	80 hr	ASTM D1693[2)]
	Shore D Hardness	53	53	ASTM D2240
	Vicat softening temperature	100 °C	100 °C	ASTM D1525

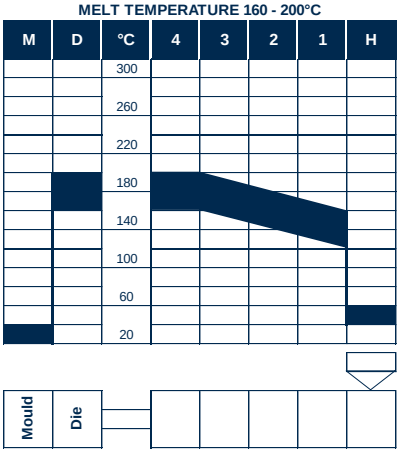
1) Crosshead speed 500mm/min
2) 100% Igepal CO630

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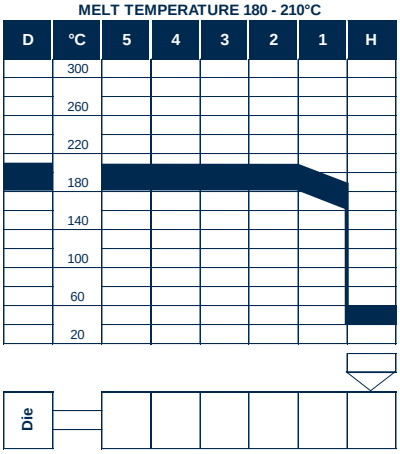
Blow moulding

MELT TEMPERATURE 160 - 200°C



Extrusion

MELT TEMPERATURE 180 - 210°C



Processing

LF2103 can be processed on all standard extrusion and blow moulding equipment. Processing temperatures need to be optimised with any equipment, but the melt temperature range should typically be 180°C to 210°C.

Handling

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal protection to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapours. Please consult the material safety data sheet (SDS) for more detailed information.

Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight during storage. If stored in cool (<25°C), dry area with low ambient light levels, polyolefin resins are expected to maintain their original material and processing properties for at least 12 months.

Combustibility

Polyethylene resins will burn when supplied adequate heat and oxygen. They should be handled and stored away from contact with direct flames and/or other ignition sources. In burning, polyethylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water and water mist preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.

Conveying

Conveying equipment should be designed to prevent accumulation of fines and dust particles that are contained in all polyethylene resins. The fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used:

- be equipped with adequate filters
- is operated and maintained in such a manner to ensure no leaks develop
- that adequate grounding exists at all times

It is further recommended that good housekeeping is practiced throughout the facility.

Regulatory & Legal Compliance

This material complies with FDA regulation 21 CFR 177.1520 when used unmodified and according to good manufacturing practices for food contact applications. Refer to applicable food contact compliance statement which is available on request.

This material is not medically approved and should therefore not be used in any such application.

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