

Product Data Sheet

Lucofin® 1400MN

Product description

Lucofin®1400MN is a polar copolymer consisting of ethylene and n-butyl acrylate with low crystallinity.

Due to its chemical structure Lucofin®1400MN is softer and more flexible than ethylene homopolymers with comparable density. Lucofin®1400MN is supplied as non-colored granules.

Product properties

Lucofin®1400MN is used as component in multi-layer film constructions or as a polymer modifier to improve splitting resistance, environmental stress crack resistance ESCR, resistance to low temperatures, weldability, and processability.

Product advantages

- easy processing with standard processing equipment
- flexibility
- impact strength at low temperatures (- 40°C)
- thermal stability (no corrosive by products)
- good mechanical properties: high temperature resistant
- good compatibility and filler acceptance
- environmentally friendly

Applications

Lucofin®1400MN is used primarily for injection molding applications, but is also suited for extrusion purposes. It is suitable for film extrusion; respective products are films for the construction and agricultural industries, FFS bags, and for food packaging applications. Moreover, Lucofin®1400MN is ideally suited as base resin for compounding or as impact modifier for stiff polymers. Compounds based on Lucofin®1400MN can be used for profile and cable extrusion purposes and for the production of sealing membranes. Furthermore, it can be used for cross-linked closed cell foams.

Processing

Lucofin®1400MN is suited for conventional standard processing equipment. We recommend the following standard values for extrusion

Profiles and hoses:	approx. 160° - 220°C
Blow molding:	approx. 160° - 200°C
Blown films:	approx. 160° - 190°C
Flat sheet composites:	approx. 160° - 220°C
Coatings:	approx. 160° - 270°C

For injection molding Lucofin®1400MN is processed at melt temperatures ranging from 180° - 250°C and mold temperatures from 10° - 40°C.

Chemical resistance

Lucofin®1400MN is resistant to water and aqueous solutions, salt as well as to dilute acids and bases. When exposed to aliphatic, aromatic and halogen-substituted hydrocarbons, Lucofin®1400MN may swell or dissolve to some degree.

Packaging

Granules in 25 kg bags, standard pallet 1.375 kg. Other packaging upon request. The product is also available as powder.

Storage and handling

Lucofin®1400M should be stored in dry conditions at a temperature below 40°C. In order to protect packaging, exposure to (UV-)light should be avoided.

Storage past 6 months may have negative effects on product processability. We strongly recommend to convert the material latest within 6 months after delivery. Use after the recommended shelf-life, the product should be inspected according to quality assurance measures to ensure product performance.

Otherwise, product degradation may occur resulting in odor generation and color changes.

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Technical data			
	Standard	Unit	Standard value
Density (23 °C)	ISO 1183	g/cm ³	0.924
MFR (190 °C/2.16 kg)	ISO 1133	g/10 min	7
Comonomer n- BA	DIN 51451	%	17
Melting temperature	ISO 3146	°C	95
Vicat softening temperature A/50	ISO 306	°C	60
ESCR	ASTM D 1693	hr	>1600
Module of Elasticity (23 °C)	ISO 178	MPa	42
Stress at break	ISO 527-1, -2	MPa	11
Elongation at break	ISO 527-1, -2	%	>800
Shore hardness D	ISO 868	-	32
Shore hardness A	ISO 868	-	88
These standard values are typical values and should not be regarded as specifications.			

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