

Product Data Sheet

Lucofin® 1400HN

Product description

Lucofin®1400HN is a polar copolymer consisting of ethylene and n-butyl acrylate with low crystallinity. Due to its chemical structure Lucofin®1400HN is softer and more flexible than ethylene homopolymers with comparable density. Lucofin®1400HN is supplied as non-colored granules.

Product properties

Lucofin®1400HN 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®1400HN is used primarily for extrusion applications. Products are films for the construction and agricultural industries, FFS bags, and for food packaging applications. Moreover, Lucofin®1400HN is ideally suited as base resin for compounding or as impact modifier for stiff polymers. Compounds based on Lucofin®1400HN 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®1400HN is suited for conventional standard processing equipment. We recommend the following standard values for extrusion.

Profiles and hoses:	approx. 160° - 200°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

Chemical resistance

Lucofin®1400HN 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®1400HN 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 and protected from UV-light. , otherwise the packaging could be damaged
Storage time longer than 6 months may have a negative influence on the processability of the product. We strongly recommend to convert the material latest within 6 months after delivery.
Use beyond the recommended shelf-life should be inspected according to quality assurance measures to ensure product performance.
Otherwise degradation may occur resulting in smell generation and color changes.

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Technical data			
	Standard	Unit	Standard value
Density (23 °C)	ISO 1183	g/cm ³	0,922
MFR (190 °C/2.16 kg)	ISO 1133	g/10 min	1,4
Comonomer n-BA	DIN 51451	%	16
Melting temperature	ISO 3146	°C	97
Vicat softening temperature A/50	ISO 306	°C	70
ESCR	ASTM D 1693	hr	>1600
Module of Elasticity (23 °C)	ISO 178	MPa	50
Stress at break – type 5 A	ISO 527-1, -2	MPa	12
Elongation at break – type 5 A	ISO 527-1, -2	%	>800
Shore hardness D	ISO 868	-	34
Shore hardness A	ISO 868	-	90

These standard values are typical values and should not be regarded as specifications.

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