

Product Data Sheet Lucofin® 1400HN Powder

Product description

Lucofin 1400HN Powder is a polar copolymer consisting of ethylene and butyl acrylate with low crystallinity. Due to its chemical structure Lucofin 1400HN Powder is softer and more flexible than ethylene homopolymers with comparable density. Lucofin 1400HN Powder is supplied as uncoloured and without additives granules.

Product properties

Lucofin 1400HN Powder can be used for polymer modification and improve:

- ▶ for compounds, the compatibility and absorptive capacity of minerals, fillers, pigments and additives
- ▶ the heat resistance in bitumen, without negative influence on the cold flexibility

Product advantages

- ▶ flexibility
- ▶ impact strength at low temperatures (- 40 °C)
- ▶ thermal stability of polymer (no corrosive by products)
- ▶ good mechanical properties
- ▶ high end use temperature
- ▶ good compatibility and filler acceptance
- ▶ good organoleptics
- ▶ environmentally sound
- ▶ heat resistance

Applications

Lucofin 1400HN Powder can be used in the following applications:

- ▶ as supporting material for compounds
- ▶ for polymer modification of bitumen and asphalt
- ▶ for powder coating

Processing

Lucofin 1400HN Powder can be processed on conventional standard processing equipment. We recommend the following standard values for extrusion:

Compounding:	approx. 160° - 290 °C
Coatings:	approx. 160° - 270 °C
Bitumen modification:	approx. 160° - 240 °C

Packaging

Granules in 20 kg bags, other packaging upon request.
The product is also available as granules.

Chemical resistance

Lucofin 1400HN Powder 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 Powder may swell or dissolve to a certain extent.

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Typical Properties			
	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	1.4
Comonomer BA	DIN 51451	%	16
Melting temperature	ISO 3146	°C	96
Vicat softening temperature A/50	ISO 306	°C	70
Module of Elasticity (23 °)	ISO 527	MPa	62
Yield strain	ISO 527	%	14.5
Yield stress	ISO 527	MPa	4
Ball indentation hardness H 49/30	ISO 2039-1	MPa	8
ESCR (ASTM-Fo)	ASTM 1693/IEC 538	h	> 1,000
Particle size	ASTM D 1921	μ	500
Shore-D-Härte	ISO 868	-	34
Shore-A-Härte	ISO 868	-	90

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

Note

The information provided in this document is based on our product tests and present technical knowledge. It does not release purchasers from the responsibility of carrying out their receiving inspections. Neither does it imply any binding assurance of suitability of our products for a particular purpose. As LUCOBIT cannot anticipate or control the many different conditions under which this product may be processed and used this information does not relieve processors from their own tests and investigations. Any proprietary rights as well as existing legislation shall be observed.