

Product Data Sheet

Lucofin® 1470

1. Product description

Lucofin®1470 is a polar copolymer with low crystallinity consisting of ethylene, t-butyl acrylate, and acrylic acid. Due to its chemical structure Lucofin®1470 is softer and more flexible than ethylene homopolymers with comparable density. Lucofin®1470 is supplied as non-colored granules.

2. Product properties

Lucofin®1470 is used as component in multilayer film applications or as a polymer modifier to improve low temperature crack resistance, stress crack resistance ESCR1, weldability, and processability. It is also used in corrosion inhibition coating.

3. Product advantages

- easy processing on standard processing equipment
- excellent wetting properties of fillers with high specific surface like carbon black
- flexibility
- high impact strength at low temperatures (- 40°C)
- thermal stability (no corrosive by-products)
- good mechanical properties
- high end use temperature
- good compatibility with other polymers and high filler acceptance
- environmentally friendly

4. Applications

Lucofin®1470 is used primarily for injection molding applications but is also suited for extrusion purposes. It can be used as carrier resin for high loaded pigment and carbon black masterbatches in order to improve the melt index in combination with excellent dispersion and can be used in extrusion coating in order to improve hot tack properties of the final product.

Lucofin®1470 can be used in injection molding for thin wall packaging as well as in cable and wire extrusion and for production of closed-cell foam.

5. Processing

Lucofin®1470 is suited for conventional standard processing equipment. We recommend the following standard values for extrusion.

Profiles and hoses:	approx. 110° - 140°C
Blow molding	approx. 130° - 200°C
Blow film:	approx. 110° - 160°C
Cast film multi layer	approx. 160° - 200°C
Extrusion Coatings:	approx. 160° - 210°C

With respect to its organoleptic suitability, the end user must and/or let conduct respective and appropriate tests due to the fact that Lucofin® 1470 is to be regarded as not unproblematic.

6. Chemical resistance

Lucofin®1470 is resistant to water and aqueous solutions, to salt as well as to dilute acids and bases. When exposed to aliphatic, aromatic and halogen-substituted hydrocarbons, Lucofin®1470 may swell or dissolve to some degree.

7. Packaging

Granules in 25 kg bags, standard pallet 1.375 kg. Other packaging upon request.

8. Storage and handling

Lucofin®1470 should be stored under dry conditions at a temperature below 40°C and protected from UV-light.

Otherwise the packaging could be damaged or degradation may occur resulting in odor generation and color changes

We strongly recommend to use the material latest within 6 months after delivery. Storage time in excess of 6 months may have a negative impact on the processability and should be inspected according to quality assurance measures to ensure product's performance

Unfavorable storage conditions may also contribute to intensify the slight but characteristic odor of the polymer

If the product is stored under different conditions, e.g. if the ambient temperature varies greatly and / or the humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the product at max. 60°C.

¹ ESCR – Environmental Stress Crack Rate

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Technical Data			
	Standard	Unit	Standard value*
MFR ² (190°C/2.16kg)	ISO 1133	g/10	7
Density (23°)	ISO 1183	g/cm ³	0.927
Modulus of Elasticity (23°C)	ISO 178	MPa	84
Elongation at yield	ISO 527	MPa	6
Shore hardness D	ISO 868		38
Vicat Erweichungspunkt (A50 (50°C/h 10N))	ISO 306	°C	72
Melting temperature	ISO 3146	°C	96

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

Zusätzliche Daten			
	Standard	Unit	Richtwert*
Comonomer AA ³	DIN	%	4
Comonomer BA ⁴	DIN	%	7
Permeation H ₂ O	ISO 2556	38 °C, 90 % RH, 100 µm: 2.3 g/m ² /d	
Permeation O ₂	ISO 2556	23 °C, 100 µm: 2400 cm ³ /m ² /d/bar	
Recommended thickness		µm	40 –

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² MFR – Melt Mass-Flow Rate

³ AA – Acrylic Acid

⁴ BA – tert-Butylacrylat

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