

Preliminary Product Data Sheet

Lucofin® 1400CN RC

1. Product description

Lucofin®1400CN RC is a polar copolymer of ethylene and n-butyl acrylate with low crystallinity and has a content of 70% recycled material (re-compound based on post industrial recycle). Due to its chemical structure, Lucofin®1400CN RC is softer and more flexible than ethylene homopolymers of comparable density. Lucofin®1400CN RC is supplied as uncoloured granulate.

2. Product properties

Lucofin®1400CN RC is used in mono layer films, multilayer film composites or as a polymer modifier to improve splicing behaviour, stress cracking resistance ESCR, low temperature flexibility, weldability and processability.

3. Product advantages

- Simple processing on conventional plastics processing lines
- Flexibility
- Low temperature impact strength (- 40 °C)
- Thermal stability of the polymer (no acid cleavage)
- good mechanical properties
- high service temperatures
- good compatibility and fillability
- Environmental friendliness

4. Applications

The material is mainly used in extrusion. In film extrusion Lucofin®1400CN RC is used e.g. for construction and agricultural films, stretch films and bonnets, FFS sacks. Applications of compounds – which are based on Lucofin®1400CN RC - are also in the field of waterproofing membranes.

5. Processing

Lucofin®1400CN RC can be processed on all machines commonly used for thermoplastics. The following guide values are recommended for extrusion:

Profiles and tubes: approx. 160° - 200 °C

Blow moulding: approx. 160° - 200 °C

Blown films: approx. 160° - 190 °C

Cast films: approx. 160° - 220 °C

Coatings: approx. 160° - 270 °C

6. Chemical resistance

Lucofin®1400CN RC is resistant to water and aqueous solutions, salts as well as diluted acids and bases. Lucofin®1400CN RC can be partially swollen or dissolved by aliphatic, aromatic and halogen-substituted hydrocarbons.

With regard to organoleptic/sensory suitability, the end user must carry out appropriate tests (have them carried out), as Lucofin®1400CN RC is not organoleptically harmless.

7. Packaging

Granules in big bags at 1000kg and 25 kg sacks on standard pallet at 1.375 kg. Special packaging is possible.

8. Storage and handling

Lucofin®1400CN RC should be stored dry, below 40°C and protected from direct UV-radiation. Otherwise packaging damage or, due to material degradation, odour and/or discolouration may occur.

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Technical data			
	Standard	Unit	Standard value
Density (23 °C)	ISO 1183-1	g/cm ³	0,923
MFR ⁴ (190 °C/2.16 kg)	ISO 1133-1	g/10 min	1,0
Comonomer n-BA ⁵	DIN 51451	%	4-5
Melting temperature	ISO 3146	°C	109
Vicat softening temperature A/50	ISO 306	°C	88
Module of Elasticity (23 °C)	ISO 178	MPa	184
Stress at break – Type 5 A	ISO 527-1, -2	MPa	23,8
Elongation at break – Type 5 A	ISO 527-1, -2	%	>600
Shore Hardness D	ISO 868	-	45

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

¹ FFS – Form, Fill and Seal

³ FDA - Food and Drug Administration

⁴ MFR – Melt Flow Ratio

⁵ n-BA – n-Butyl-acrylate

⁶ NB – No Break

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