

Product Data Sheet

Lucofin® 1083 DN (preliminary data)

Product description

Lucofin® 1083 DN is a polar copolymer with low crystallinity consisting of ethylene and n-butyl acrylate. Due to its chemical structure Lucofin® 1083 DN is softer and more flexible than ethylene homopolymers with comparable density. Lucofin® 1083 DN is supplied as non-coloured granules. The butyl acrylate content is 8%.

Product properties

Lucofin® 1083 DN is used as component in mono- and multilayer film applications or as a polymer modifier to improve low temperature impact resistance, stress crack resistance ESCR (Environmental Stress Crack Rate), weldability and processability.

Product advantages

- Processing on conventional Polyethylene processing machines is recommended.
- high flexibility
- high impact strength at low temperatures (-40°C)
- thermal stability (no corrosive by products)
- good mechanical properties
- high temperature resistance
- good compatibility to other polymers and high filler acceptance

Applications

Lucofin® 1083 DN is suitable for film extrusion; respective products are films for construction, agriculture industries, form fill seal bags (FFS) and for packaging applications in contact with food. It is also suitable for Cable Compounds, combining excellent processability and very good mechanical properties. Moreover, Lucofin® 1083 DN is ideally suited as base resin for compounding or as impact modifier for stiff polymers.

Food Approval

This product complies with the relevant requirements of regulation

- 1935/2004 / EC
- 2023/2006 / EC (GMP)
- 10/2011 / EC (PIM) (last regulation 2016/1416 / EC).

Information on FDA compliance on request.

Processing

Lucofin® 1083 DN is suited for conventional standard processing equipment. We recommend the following standard values for extrusion.

| | |
|--------------|----------------------|
| Cables | approx. 160° - 200°C |
| Blow molding | approx. 170° - 200°C |
| Blown Films | approx. 170° - 190°C |

Chemical Stability

Lucofin® 1083 DN 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® 1083 DN may swell or dissolve to some degree. With respect to its organoleptic suitability, we recommend appropriate tests.

Packaging and Storage

Granules in 25 kg bags, standard pallet 1.375 kg. Other packaging upon request. Lucofin® 1083 DN 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 odour generation and color.

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Disclaimer

The product mentioned herein is not intended to be used for medical, pharmaceutical or healthcare applications; and we do not support its use for such applications. To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. However, we do not assume any liability whatsoever for the accuracy and completeness of these information. LUCOBIT AG gives no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose. It is the customer's responsibility to inspect and test our pro-

ducts in order to satisfy himself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use as well as the appropriate processing and handling of our products. No liability can be accepted with respect to the use of LUCOBIT AG products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any other third party materials.

| Properties | | | |
|---|---------|-------------------|-------------|
| | Value* | Unit | Test Method |
| General | | | |
| Melt flow rate (190°C, 2.16kg) | 0.35 | g/10 min | ISO 1133 |
| Butyl acrylate content | 8 | % | Internal |
| Density at 23°C | 924 | kg/m ³ | ISO 1183 |
| Mechanical | | | |
| Tensile strength at break (MD/TD) | 25/26 | MPa | ISO 527-3 |
| Elongation at break (MD/TD) | 680/710 | % | ISO 527-3 |
| * Provisional values to be confirmed upon statistical data. | | | |

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.

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