



Lucalen G3710E

Compounded Polyolefin

Product Description

Lucalen G3710E is a maleic anhydride grafted polyethylene resin with a high thermal stability and good flexibility.

Lucalen G3710E is primarily designed to be used as the adhesive layer between the top coat polyethylene and the epoxy layer in a 3-layer coating system with easy processing characteristics. Lucalen G3710E is available in pellet form.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, North America, Asia-Pacific, Australia/NZ, Africa-Middle East
Processing Methods	Extrusion Coating
Features	Good Adhesion, Copolymer, Good Heat Aging Resistance, High Heat Resistance, Good Thermal Aging Resistance, Good Thermal Stability
Typical Customer Applications	Coatings, Protective, Pipe Coating, Pipes

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.931	g/cm ³
Melt flow rate (MFR) (190°C/2.16kg)	ISO 1133	1.5	g/10 min
Bulk density (23°C)	ISO 60	> 0,5	g/cm ³
Note: ISO 60			
Mechanical			
Tensile Modulus (23 °C, v = 1 mm/min)	ISO 527-1, -2	400	MPa
Tensile Stress at Yield (23 °C, v = 50 mm/min)	ISO 527-1, -2	12	MPa
Tensile Strain at Break (23 °C, v = 50 mm/min)	ISO 527-1, -2	> 700	%
Hardness			
Shore hardness (Shore D)	ISO 868	51	
Thermal			
Brittleness Temperature	ASTM D 746	< -70	°C
Vicat softening temperature A/50	ISO 306	≥ 100	°C

Additional Properties

Water content ISO 15512 ≤ 0,1 %
 Peel strength (23°C) DIN 30670 > 200 N/cm
 Peel strength (80°C) DIN 30670 > 40 N/cm Melting point ISO 3146 125°C Processing:
 Recommended melt temperatures: 215 -240 °C.
 Unless specifically indicated, the grade mentioned is not suitable for applications in the pharmaceutical/medical sector.

Notes

Typical properties; not to be construed as specifications.

Further Information

Lucalen G3710E

Conveying:

Conveying equipment should be designed to prevent production and accumulation of fines and dust particles that may be contained to a small extent in polymer materials. These particles can under certain conditions pose an explosion hazard. We recommend the conveying system used is equipped with adequate filters, is operated and maintained so that no leak develops and adequate electrical grounding exists at all times.

Health and Safety:

Special requirements apply to certain applications such as food contact end-use and direct medical use. For specific information on regulatory compliance contact your local representative.

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimum precaution to prevent mechanical or thermal injury to the eyes.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation have an unpleasant odour. In higher

concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapours. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards in processing the material have been reported.

The material will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the material generates considerable heat and may generate dense black smoke. Minor fires can be extinguished by water, developed fires should be extinguished by heavy foams forming an aqueous or polymeric film. For further information about safety in handling and processing please refer to the Material Safety Data Sheet (MSDS).

Storage:

The material is packed in 25 kg bags or in bulk containers protecting it from contamination. The polyethylene (PE) based materials (adhesive and topcoat) listed below have shown, in Basell's experience under controlled conditions, a typical shelf-life of two (2) years from date of production, provided the product is stored in optimal conditions (including but not limited to a properly ventilated area, adequately dry conditions, protection from heat and direct sunlight and no adverse influence of any other natural or artificial factor) and is kept sealed in its original packaging at any time before use.

- Lucalen A2910M (pellet)
- Lucalen A3110M (pellet)
- Lucalen A3110M Q244 (powder)
- Lucalen G3710E (pellet)
- Lupolen 4552D black (pellet)

Further unfavourable storage conditions are large fluctuations in ambient temperature and high atmospheric humidity. These conditions may lead to moisture condensing inside the packaging. Under these circumstances, it is recommended to dry the material before use. Unfavourable storage conditions may also intensify the material's slight characteristic odour.

Due the hygroscopic character of the carbon black pigments, black coloured materials may pick up moisture even under appropriate storage conditions. If this is the case it is recommended to dry the material before processing. After a storage period of more than 3 months drying of such material is recommended as standard practice.

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All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.

Users should review the applicable Material Safety Data Sheet before handling the product.

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