

# LOTADER<sup>®</sup> 3200

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## TERPOLYMER Ethylene – Acrylic Ester– Maleic Anhydride

### Description

**LOTADER 3200** is a random terpolymer of Ethylene, Acrylic Ester and Maleic Anhydride, polymerized under high pressure in an autoclave process.

### Main applications

Due to its properties, **LOTADER 3200** is used in pipeline protective coatings as a bonding layer between epoxy resin and polyethylene. **LOTADER 3200** is also used as a coupling agent in mineral filled compounds.

### Typical characteristics

Characteristics	Value	Unit	Test Method
Melt index (190°C / 2,16 kg)	5	g/10mn	ASTM D 1238
Butyl Acrylate content	6	% wt	IRTF (internal)
Maleic Anhydride content	3.1	% wt	IRTF (internal)

### Main properties

- Acrylic Ester brings some softness and polarity, while keeping high thermal stability during processing.
- Maleic Anhydride gives reactivity, leading to very versatile adhesive properties to polar and non polar substrates (rubber, plastic films, paper, cardboard, aluminium foil, steel & glass) and good interactions with mineral fillers (coupling agent).
- As an ethylene copolymer, **LOTADER 3200** is compatible with LDPE in all proportions, and with almost all other ethylene copolymers.
- **LOTADER 3200** gives outstanding adhesion on epoxy resin and polyethylene.
- **LOTADER 3200** has very good mechanical properties and is very easy to process.

## Processing

- The same extruders can be used for **LOTADER 3200** as for LDPE or other ethylene copolymers.
- In pipe coating operations, the melt temperature of **LOTADER 3200** must be in the range 180°C-230°C at the die. **LOTADER 3200** must be coated on the epoxy resin before it is fully cured. The tube should be heated between 180°C-220°C depending of it forwarding speed.
- **LOTADER 3200** is not corrosive. However, to minimize the generation of gels, it is recommended to purge the equipment after a run is completed.

## Physical properties

Characteristics	Value	Unit	Test Method
Density (23°C)	0.94	g/cm <sup>3</sup>	ISO 1183
Melting point	107	°C	DSC
Vicat softening point (1 kg)	80	°C	ASTM D 1525 / ISO 306
Brittle point	< -50	°C	ASTM D 726
Elongation at break (1)	600	%	ASTM D 638 / ISO R 527
Tensile strength at break (1)	12	MPa	ASTM D 638 / ISO R 527
Flexural modulus (1)	120	MPa	ASTM D 790 / ISO 178
Hardness Shore D (1)	46	-	ASTM D 2240

(1) On compression molded samples.

## Packaging

**LOTADER 3200** is commonly packed in 25 kg waterproof bags or in 500 kg octabins with waterproof liner. It is recommended to reseal the bag or the liner after a partial use to protect **LOTADER 3200** against moisture.

## Security / Precautions of use

A safety data sheet as well as information on handling and storage of the **LOTADER 3200** are available close to your correspondent ARKEMA or on the site [www.arkemagroup.com](http://www.arkemagroup.com) under heading FDS.

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