

# LOTADER<sup>®</sup> P3 3200

---

## TERPOLYMER Ethylene – Acrylic Ester– Maleic Anhydride

### Description

**LOTADER P3 3200** is a random terpolymer of Ethylene, Acrylic Ester and Maleic Anhydride, polymerized under high pressure in an autoclave process. **LOTADER P3 3200** is in powder form.

### Main applications

Due to its properties, **LOTADER P3 3200** is used in pipeline protective coatings as a bonding layer between epoxy resin and polyethylene.

### 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 P3 3200** is compatible with LDPE in all proportions, and with almost all other ethylene copolymers.
- **LOTADER P3 3200** gives outstanding adhesion on epoxy resin and polyethylene.
- **LOTADER P3 3200** has very good mechanical properties and is very easy to process.

## Processing

## 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            |
| Sieve analysis (powder) :     |         |                   |                        |
| > 400 microns                 | < 3     | % wt              |                        |
| 400 - 315 microns             | < 30    | % wt              |                        |
| 315 - 200 microns             | >, = 40 | % wt              |                        |
| < 125 microns                 | < 15    | % wt              |                        |

(1) On compression molded samples.

## Packaging

**LOTADER P3 3200** is commonly packed in 20 kg waterproof bags. It is recommended to reseal the bag after a partial use to protect **LOTADER P3 3200** against moisture.

## Security / Precautions of use

A safety data sheet as well as information on handling and storage of the **LOTADER P3 3200** are available close to your correspondent ARKEMA or on the site [www.arkemagroup.com](http://www.arkemagroup.com) under heading FDS.

july 2005

The information contained in this document is based on trials carried out by our Research Centers and data selected from the literature, but shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment from our part. Our formal specifications define the limit of our commitment. No liability whatsoever can be accepted by Arkema with regard to the handling, processing or use of the products concerned which must in all cases be employed in accordance with all relevant laws and/or regulations in force in the country or countries concerned.



Technical Polymers Division  
4/8, cours Michelet – La Défense 10  
92800 Puteaux - France  
[www.arkemagroup.com](http://www.arkemagroup.com)

[www.lotader.com](http://www.lotader.com)