

## Ethylene – Acrylic Ester– Maleic Anhydride terpolymer

### Description

LOTADER<sup>®</sup> 3210 is a random terpolymer of ethylene, acrylic ester and maleic anhydride, polymerized by high-pressure autoclave process.

### Applications

LOTADER<sup>®</sup> 3210 is a versatile adhesive for extrusion coating or lamination, designed as:

- Concentrate to be used in dry blend with LDPE. LOTADER<sup>®</sup> 3210 improves adhesion of LDPE on aluminium foils, metallized or primerized films.
- Ready for use resin to be used pure. LOTADER<sup>®</sup> 3210 gives excellent adhesion on substrates likes aluminium foil, metallized plastics, paper, board, PE and some plastic films like BOPP.
- Coextrusion tie layer for PE/PA in extrusion coating process.

LOTADER<sup>®</sup> 3210 is also a coupling agent for mineral filled compounds such as halogen free flame retardant wires and cables, a compatibilizer for polyamide/polyolefin blends and a modifier for polyamides.

### Typical properties

Characteristics	Value	Unit	Test Method
Butyl acrylate content	6	% Wt	FTIR (internal)
Maleic anhydride content	3.1	% Wt	FTIR (internal)
Melt index (190°C / 2.16 kg)	5	g/10min	ISO 1133 / ASTM D1238
Melting point	107	°C	ISO 11357-3
Density	0.94	g/cm <sup>3</sup>	ISO 1183 / ASTM D1505
Vicat softening temperature (10N) <sup>(1)</sup>	76	°C	ISO 306 / ASTM D1525
Flexural modulus <sup>(1)</sup>	120	MPa	ISO 178 / ASTM D790
Elongation at break <sup>(1)</sup>	600	%	ISO 527-2 / ASTM D638
Tensile strength at break <sup>(1)</sup>	12	MPa	ISO 527-2 / ASTM D638
Hardness shore D <sup>(1)</sup>	46		ISO 868 / ASTM D2240

<sup>(1)</sup> On compression molded samples.

### Processing

As a result of high-pressure polymerization in autoclave reactor, LOTADER<sup>®</sup> 3210 molecular structure and rheology are remarkably suitable for all kinds of extrusion, including extrusion coating/lamination: low neck-in, excellent melt stability and drawability.

Standard polyolefin extrusion equipment can be used for LOTADER<sup>®</sup> 3210, which has the same processability as LDPE and the same heat stability given by acrylate comonomers. Recommended temperature range is from 270°C up to 320 – 330°C. It is recommended to purge the equipment with LDPE after a run is completed before shutting down.

### Storage, handling and safety

LOTADER<sup>®</sup> 3210 is usually packed in waterproof bags or rigid containers with waterproof liner. It should be stored in dry conditions and be kept out of moisture in an aerated building. Improper storage conditions may cause degradation and could have consequences on physical properties of the product. It is recommended to reseal the bag or the liner after use to protect LOTADER<sup>®</sup> 3210 against moisture.

Safety data sheet as well as information on handling and storage of LOTADER<sup>®</sup> 3210 is available upon request to your ARKEMA representative or at [www.lotader.com](http://www.lotader.com).

September 2010

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.

