

# LOTADER<sup>®</sup> 4700

## Ethylene – Acrylic Ester - Maleic Anhydride terpolymer

### DESCRIPTION

LOTADER<sup>®</sup> 4700 is a random terpolymer of ethylene, acrylic ester and maleic anhydride, polymerized by high-pressure autoclave process.

- Acrylic ester brings softness and polarity, while keeping high thermal stability during processing.
- The high content of acrylic ester leads to high flexibility (low-crystallinity) and high impact absorption behaviour.
- Maleic anhydride gives reactivity (towards OH and NH<sub>2</sub> groups), leading to optimal dispersion during melt mixing with engineering thermoplastics (mainly polyamides).

### TYPICAL PROPERTIES

Characteristics	Value	Unit	Test Method
Ethyl Acrylate content	29	% Wt	FTIR (internal method)
Maleic Anhydride content	1.3	% Wt	FTIR (internal method)
Melt Index (190°C / 2.16 kg)	7	g/10min	ISO 1133 / ASTM D1238
Melting point	65	°C	ISO 11357-3
Density	0.94	g/cm <sup>3</sup>	ISO 1183 / ASTM D1505
Vicat softening temperature (10N) <sup>(1)</sup>	<40	°C	ISO 306 / ASTM D1525
Flexural modulus <sup>(1)</sup>	<30	MPa	ISO 178 / ASTM D790
Elongation at break <sup>(1)</sup>	800	%	ISO 527-2 / ASTM D638
Tensile strength at break <sup>(1)</sup>	5	MPa	ISO 527-2 / ASTM D638

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

### APPLICATIONS

Due to its properties (softness, reactivity), LOTADER<sup>®</sup> 4700 is suitable as modifier to improve the impact strength of polyamides (PA6, PA66, PA12 etc.). It can also be used as a compatibilizer for polyamides / polyolefins blends.

For more detailed information and recommendations regarding your specific application, please contact your local ARKEMA technical representative.

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## PROCESSING

Heat stability of acrylate comonomers allows processing temperatures as high as for polyamides, which is the main material using **LOTADER® 4700** as impact modifier. However, to minimize the generation of gels, it is recommended to purge the equipment with LDPE after a run is completed. **LOTADER® 4700** is not corrosive.

## STORAGE, HANDLING AND SAFETY

**LOTADER® 4700** 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® 4700** against moisture.

Due to its physical properties (Vicat temperature <40°C), it may be possible that the **LOTADER® 4700** shows some caking. This is particularly true during summer time.

Safety data sheet as well as information on handling and storage of the **LOTADER® 4700** is available upon request to your ARKEMA representative or on the web site [LOTADER.com](http://LOTADER.com).

## SHELF LIFE

Two years from the date of delivery, in unopened packaging. For any use above this limit, please refer to our technical services.

February 2018

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