

# LOTADER<sup>®</sup> AX8900

## Ethylene – Acrylic Ester - Glycidyl Methacrylate terpolymer

### DESCRIPTION

LOTADER<sup>®</sup> AX8900 is a random terpolymer of ethylene, acrylic ester and glycidyl methacrylate, 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.
- Glycidyl methacrylate gives reactivity (versus OH, COOH and NH<sub>2</sub> groups), leading to optimal dispersion during melt mixing with engineering thermoplastics.
- As an ethylene copolymer, LOTADER<sup>®</sup> AX8900 is compatible with LDPE in all proportions, and with almost all other ethylene copolymers.
- LOTADER<sup>®</sup> AX8900 exhibits good adhesion on PET, PBT, PPS, metal, paper, and glass.

### TYPICAL PROPERTIES

Characteristics	Value	Unit	Test Method
Methyl Acrylate content	24	%Wt	FTIR (internal method)
Glycidyl Methacrylate content	8	% Wt	FTIR (internal method)
Melt Index (190°C / 2.16 kg)	6	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>	1100	%	ISO 527-2 / ASTM D638
Tensile strength at break <sup>(1)</sup>	4	MPa	ISO 527-2 / ASTM D638
Hardness Shore A/D (at 1s) <sup>(1)</sup>	64/18	-	ISO 868 / ASTM D2240

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

### APPLICATIONS

Due to its properties, LOTADER<sup>®</sup> AX8900 is suitable as additive (toughener) to improve the impact strength of engineering thermoplastics like polyesters (PBT, PET), PC/PBT and PC/ABS alloys, PPS. It can also be used as a compatibilizer for polyesters/polyolefins blends and in some formulated adhesive tapes. For more detailed information and recommendations regarding your specific application, please contact your local ARKEMA technical representative.

# LOTADER® AX8900

## Processing

Heat stability of acrylate comonomers allows processing temperatures as high as for polyesters (PBT, PET) and PPS, which are the main material using **LOTADER® AX8900** as impact modifier.

**CAUTION: LOTADER® AX8900** reacts with polymers containing maleic anhydride and acid. This reaction may generate gels or can block an extruder if not controlled. Extruders must be thoroughly purged before and after extruding **LOTADER® AX8900**.

## STORAGE, HANDLING AND SAFETY

**LOTADER® AX8900** 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.

Due to its physical properties (Vicat temperature <40°C), it may be possible that the **LOTADER® AX8900** shows some caking. This is particularly true during summer time.

Safety data sheet as well as information on handling and storage of the **LOTADER® AX8900** 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.

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