

LOTADER[®] AX 8840

COPOLYMER Ethylene – Glycidyl Methacrylate

Description

LOTADER AX 8840 is a random copolymer of Ethylene and Glycidyl Methacrylate, polymerized under high pressure in an autoclave process.

Main applications

Due to the reactivity induced by the Glycidyl methacrylate, **LOTADER AX 8840** can be use as a compatibilizer for Polyesters/Polyolefins blends and as an adhesive for some laminate structures (Polyolefins/Polyesters, Polyolefins/PPS etc.).

Typical characteristics

Characteristics	Value	Unit	Test Method
Melt index (190°C / 2,16 kg)	5	g/10mn	ASTM D 1238
Glycidyl Methacrylate content	8	% wt	IRTF (internal)

Main properties

- Glycidyl methacrylate gives reactivity versus OH, COOH, NH₂ etc., leading to optimale dispersion during melt mixing with engineering thermoplastics (PA, Polyesters, PPS).
- As an ethylene copolymer, **LOTADER AX 8840** is compatible with LDPE in all proportions, and with almost all other ethylene copolymers.
- Good adhesion on PET, PBT, PPS, metal, paper, glass..

Processing

- Heat stability of **LOTADER AX 8840** allows processing temperatures as high as for polyesters and PPS, which are the main material using **LOTADER AX 8840** (impact modifier, compatibilizer or tie layer). Nevertheless, to minimize the generation of gels, it is recommended to purge the equipment after a run is completed as **LOTADER AX 8840** is able to crosslink with time and temperature.
- **LOTADER AX 8840** is not corrosive.

Warning

LOTADER AX 8840 reacts with maleic anhydride and acid containing polymers. This reaction can be the cause of gels or can block an extruder if not controlled. Extruders must be purged thoroughly before and after extruding Lotader AX 8840.

Physical properties

Characteristics	Value	Unit	Test Method
Density (23°C)	0.94	g/cm ³	ISO 1183
Melting point	106 (223)	°C (°F)	DSC
Vicat softening point (1 kg)	87 (189)	°C (°F)	ASTM D 1525 / ISO 306
Young's Modulus	104	MPa	ASTM D 638 Type IV
Elongation at break (1)	400	%	ASTM D 638 Type IV
Tensile strength at break (1)	8	MPa	ASTM D 638 Type IV
Flexural modulus (1)	85	MPa	ASTM D 790 / ISO 178
Hardness Shore D (1) (1 second)	50	-	ASTM D 2240

(1) On compression molded samples.

Packaging

LOTADER AX 8840 is commonly packed in 25 kg waterproof bags. During storage, the material must be kept out of moisture in an aerated building at a temperature lower than 50°C (112°F).

Security / Precautions of use

A safety data sheet as well as information on handling and storage of the **LOTADER AX 8840** are available close to your correspondent ARKEMA or on the site www.arkemagroup.com under heading FDS.

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Technical Polymers Division
4/8, cours Michelet – La Défense 10
92800 Puteaux - France
www.arkemagroup.com

www.lotader.com