

## Impact modifier for Engineering Resins

### Description

LOTADER<sup>®</sup> CX8904 is based on a unique structure modification of functionalized polyolefins that allows for the very high efficiency of a low Tg high thermal stability rubber with the inherent miscibility of functionalized copolymers.

### Main applications

Due to its properties (reactivity, softness), LOTADER<sup>®</sup> CX8904 is a toughener of choice designed to improve the impact strength of thermoplastic resins such as Polyesters (PBT, PET, PLA.) and Polyester blends (PBT/PET, PC/PET, PC/PBT, PC/PLA). LOTADER<sup>®</sup> CX8904 combines high impact performances at low temperatures with high thermal stability and weatherability.

### Typical characteristics

Characteristics	Value	Unit	Test Method
Melt index (190°C/2.16 kg)	0.5-0.6	g/10mn	ASTM D 1238
Glycidyl Methacrylate content	4	% wt	FTIR (internal)

### Properties, benefits and use

- The low glass transition temperature (Tg) of LOTADER<sup>®</sup> CX8904 allows it to be used for demanding low temperature applications.
- Glycidyl methacrylate gives reactivity (versus OH, COOH groups), leading to optimal dispersion during melt mixing with Engineering Thermoplastics.
- LOTADER<sup>®</sup> CX8904 leads to 100% ductility for PBT at -10°C with 20% loading.
- LOTADER<sup>®</sup> CX8904 achieves never before reached performances at significantly lower loading than with conventional modifier systems.
- LOTADER<sup>®</sup> CX8904 is an all-acrylic impact modifier providing excellent weatherability (UV aging resistance) and very good heat aging resistance; a benefit for parts exposed to sunlight or high service temperatures.
- LOTADER<sup>®</sup> CX8904 is particularly suitable for high thermal applications (almost no discoloration in PBT matrix after 10 days at 120°C).

## Processing

- The heat stability of **LOTADER® CX8904** allows it to be processed at temperatures commonly used to process polyesters (PBT, PET, PLA) and polyester blends.
- **LOTADER® CX8904** is not corrosive.

### Warning

**LOTADER® CX8904 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® CX8904.**

## Physical properties

Characteristics	Value	Unit	Test Method
Density (23°C)	1.01	g/cm <sup>3</sup>	ISO 1183
Melting point	65 (140)	°C (°F)	DSC
Vicat softening point (1 kg)	< 40 (< 104)	°C (°F)	ASTM D 1525 / ISO 306

## Packaging

**LOTADER® CX8904**, available in pellet form, is commonly packed in 20 kg bags. During storage, the material must be kept out of moisture in an aerated building at temperature lower than 45°C (112°F).

## Security / Precautions of use

A safety data sheet, as well as information on handling and storage of **LOTADER® CX8904**, is available from any ARKEMA representative or on our website [www.arkema.com](http://www.arkema.com) under the heading FDS.

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