SK functional polymer

Technical Data Sheet

LOTADER® 4700

LOTADER® 4700 is a random ethylene – ethyl acrylate - maleic anhydride terpolymer.

LOTADER® 4700 resins:

- 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 behavior.
- Maleic anhydride gives reactivity (towards OH and NH2 groups), leading to optimal dispersion during melt mixing with engineering thermoplastics (mainly polyamides).

LOTADER® 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.

Typical Properties

	Test Method	Unit	Typical Value
Ethyl Acrylate Content	FTIR (internal method)	%.-wt.	29
Maleic Anhydride Content	FTIR (internal method)	%.-wt.	1.3
Melt Index (190°C/2.16kg)	ISO 1133	g/10min.	7
Melting Point	ISO 11357 / ASTM D3418	°C	65
Vicat Softening Temperature	ISO 306 / ASTM D1525	°C	< 40
Density	ISO 1183	g/cm^3	0.94
Flexural Modulus (1)	ISO 178	MPa	< 30
Elongation at break (1)	ISO 527 / ASTM D638	%	800
Tensile strength at break (1)	ISO 527 / ASTM D638	MPa	5

(1) On compression molded samples.

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 & 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.