SK functional polymer

LOTADER® AX8850

LOTADER® AX8850 is a random ethylene - glycidyl methacrylate copolymer (E-GMA).

- The glycidyl methacrylate group gives reactivity with chemical functions such as OH, COOH and NH2 groups leading to its optimal dispersion during melt mixing with engineering thermoplastics (PET, PBT, PPS…).
- LOTADER® AX8850 high fluidity combined with the high GMA content yields to compounds targeting injection molding.
- LOTADER® AX8850 is a good compatibilizer of PET/PE, PBT/PE blends and is therefore recommended for the mechanical recycling of these blends.
- As an ethylene copolymer, LOTADER® AX8850 is compatible with LDPE and with many ethylene copolymers.
- LOTADER® AX8850 is also a good adhesion promoter when blended with polyolefin.

Typical Properties

	Test Method	Unit	Typical Value
Glycidyl Methacrylate Content	FTIR (internal method)	%wt.	12
Melt Index (190°C/2.16kg)	ISO 1133	g/10min.	40
Melting Point	ISO 11357-3	°C	98
Vicat Softening Temperature (10N)[1]	ISO 306 / ASTM D1525	°C	64
Flexural Modulus[1]	ISO 178 / D790	MPa	77
Tensile modulus[1]	ISO 527 / ASTM D638	MPa	80
Elongation at Break[1]	ISO 527 / ASTM D638	%	600
Tensile Strength at Break[1]	ISO 527 / ASTM D638	MPa	7.9
Hardness Shore A / D [1] (15s)	ISO 868 / ASTM D2240	-	93 / 38
Density	ISO 1183	g/cm^3	0.94

[1]: On compression molded samples.

Processing

Heat stability of acrylate comonomer allows processing temperatures as high as for polyesters (PBT, PET) and PPS, which are the main material using LOTADER® AX8850 as impact modifier.

CAUTION: LOTADER® AX8850 reacts with polymers containing maleic anhydride and acid functions. This reaction may generate gels or can block an extruder if not controlled. Extruders must be thoroughly purged before and after extruding LOTADER® AX8850.

Storage, Handling & Safety

LOTADER® AX8850 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.