

LOTADER[®] 4210

LOTADER[®] 4210 is a random ethylene-butyl acrylate-maleic anhydride terpolymer (EMA-MAH).

LOTADER[®] 4210 is a versatile adhesive for extrusion coating or lamination, designed as:

- Concentrate to be used in dry blend with LDPE. LOTADER[®] 4210 improves adhesion of LDPE on aluminum foils, metallized or primer-treated films.
- Ready for use resin to be used pure. LOTADER[®] 4210 gives excellent adhesion on substrates like aluminum foil, metallized plastics, paper, board, PE and some plastic films like BOPP.
- Coextrusion tie layer for PE/PA in extrusion coating process.

LOTADER[®] 4210 is also a coupling agent for mineral filled compounds such as halogen free flame-retardant wires and cables, a compatibilizer for polyamide/polyolefin blends and a modifier for polyamides.

Typical Properties

	Test Method	Unit	Typical Value
Melt Index (190°C/2.16kg)	ISO 1133 / ASTM D1238	g/10min.	10
Butyl Acrylate Content	FTIR (internal method)	%wt.	6.5
Maleic Anhydride Content	FTIR (internal method)	%wt.	3.6
Density	ISO 1183	-	0.94
Melting Point	ISO 11357	°C	105
Vicat Softening Temperature ¹	ISO 306	°C	69
Tensile strength at break ¹	ISO 527 / ASTM D638	MPa	10
Elongation at break ¹	ISO 527 / ASTM D638	%	650
Flexural Modulus ¹	ISO 178 / ASTM D790	MPa	120
Hardness Shore D ¹	ISO 868 / ASTM D2240	-	46

¹: On compression molded samples.

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Processing

As a result of high-pressure polymerization in autoclave reactor, LOTADER® 4210 molecular structure and rheology are remarkably suitable for all kinds of extrusion, including extrusion coating/lamination: low neck-in, excellent melt stability and drawability.

Standard polyolefin extrusion equipment can be used for LOTADER® 4210, which has the same processability as LDPE and the same heat stability given by acrylate comonomers. Recommended temperature range is from 270°C up to 320 – 330°C. It is recommended to purge the equipment with LDPE after a run is completed before shutting down.

Storage, Handling & Safety

LOTADER® 4210 is usually packed in waterproof bags or rigid containers with waterproof liner. It should be stored in a ventilated area, away from heat, humidity and direct sunlight. 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® 4210 against moisture.

Safety data sheet as well as information on handling and storage of the LOTADER® 4210 are available upon request to your SK Functional Polymer representative or at www.sk-fp.com.

Shelf Life

Three years from the date of delivery, in unopened packaging. For any use above this limit, please refer to our technical services.