

LOTADER[®] 4503

Ethylene – Acrylic Ester - Maleic Anhydride terpolymer

DESCRIPTION

LOTADER[®] 4503 is a random terpolymer of ethylene, acrylic ester and maleic anhydride, polymerized by high-pressure autoclave process.

TYPICAL PROPERTIES

Characteristics	Value	Unit	Test Method
Methyl Acrylate content	20	% Wt	FTIR (internal method)
Maleic Anhydride content	0.3	% Wt	FTIR (internal method)
Melt Index (190°C / 2.16 kg)	8	g/10min	ISO 1133 / ASTM D1238
Melting point	80	°C	ISO 11357-3
Density	0.94	g/cm ³	ISO 1183 / ASTM D1505
Vicat softening temperature (10N) ⁽¹⁾	45	°C	ISO 306 / ASTM D1525
Flexural modulus ⁽¹⁾	20	MPa	ISO 178 / ASTM D790
Elongation at break ⁽¹⁾	750	%	ISO 527-2 / ASTM D638
Tensile strength at break ⁽¹⁾	9	MPa	ISO 527-2 / ASTM D638
Hardness Shore D ⁽¹⁾	25		ISO 868 / ASTM D2240

⁽¹⁾ On compression molded samples.

APPLICATIONS

LOTADER[®] 4503 is a versatile adhesive for extrusion lamination, designed as a ready for use resin to be used pure.

LOTADER[®] 4503 gives excellent adhesion to plain, primer-less OPET films as well as to other plastic films like OPP, CPP, OPA and reverse-printed films. It also bonds to easier substrates like PE films, aluminium foil, metalized plastics, paper and board.

Typical uses are:

- Adhesive for extrusion lamination of polar and non-polar films and foils, particularly for OPET and aluminium.
- Adhesive for coextrusion coating of LDPE / Tie / EVOH or PA / tie onto OPET or other films.

For more detailed information and recommendations regarding your specific application, please contact your local ARKEMA technical representative.

LOTADER® 4503

PROCESSING

As a result of high-pressure polymerization in autoclave reactor, **LOTADER® 4503** 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® 4503**, 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 AND SAFETY

LOTADER® 4503 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® 4503** against moisture.

Safety data sheet as well as information on handling and storage of the **LOTADER® 4503** is available upon request to your ARKEMA representative or on the web site lotader.com.

SHELF LIFE

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

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Any claim relating to defects or non-compliance of the products shall be valid only if it is sent to Arkema in writing within fifteen (15) calendar days following delivery of the Product.