

Lithene *ultra* AL-15MA is a highly viscous, low molecular weight, liquid polybutadiene. It is produced from the low odour base Lithene *ultra* AL, adducted with 15 parts maleic anhydride. It is used as a highly efficient adhesion promoter in sulphur cured automotive sealants.

For further information regarding this product please refer to:

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## TYPICAL APPLICATIONS

Adhesion promoter in automotive sealants and semi structural adhesives

Rubber to metal adhesion promoter

Electrical encapsulants

Lithene *ultra* AL-15MA is despatched from our UK production plant.

Property	Typical Value	Unit	Method <sup>1</sup>
Viscosity@ 25 °C	1500 - 6000	dPa.s	LTM01
Total acid	68 - 80	mg KOH/g	LTM54
Residual maleic anhydride	0.1 max	%	LTM52
Non volatile content	>95.0	%	LTM51
Typical molecular weight Mn	850	Da	
Molecular weight distribution	Broad		
Appearance	Dark brown viscous liquid		

<sup>1</sup> internal method based upon the specified norm

## Application Advice

Handling - Lithene *ultra* AL-15MA is a highly viscous, liquid polymer. The viscosity of the product will decrease with increased temperature and the product will normally required gentle heating to improve flow and handling. Compatibility - Liquid polybutadienes are generally compatible with most aliphatic and aromatic hydrocarbon solvents. They have limited solubility in alcohols, ketones and esters. Further details are available on request.

Applications ; Lithene *ultra* AL-15MA may be formulated as part of the binder system in a structural or sound deadening automotive sealant. The high polarity allows the product to significantly increase adhesion of the sealant especially direct to oily metal surfaces. The high vinyl 1,2 content polymer structure cures efficiently in accelerated sulphur systems and contributes to the adhesive strength of the sealant. It can be readily used in combination with non functional Lithene *ultra* grades such as PM4, AL and AH.

## Shipping and Storage

Lithene *ultra* AL-15MA should be stored in cool, dry conditions below +30°C (+86°F). If stored in the original sealed packaging the product has a shelf life of at least 12 months from date of delivery. Product which has been stored for longer than 12 months should be tested before use. Containers which have been opened should be purged with dry nitrogen before resealing to protect the remaining product from oxidative skinning and hydrolysis. Further information is available on the datasheet Storage of Lithene Liquid Polybutadienes. Lithene *ultra* AL-15MA is packed in open top 200litre steel drums containing 188kg. The minimum order quantity is one pallet (four drums).

## Product Safety

Before handling, please read the Safety Data Sheet of this product for advice on safety, use and disposal.