Version 4 28.01.2020

ARMOUR LYTE FR
CLASS 1 FIRE RETARDANT POLYURETHANE SPRAY ELASTOMER

PRODUCT DESCRIPTION

ARMOUR-LYTE FR is a resin system which, when combined with Armour - Lyte H produces a resilient, durable polyurea elastomer that has been tested to achieve a rating of Class 1 Surface spread of Flame in the BS476 Part 7 Fire Test.

ARMOUR – LYTE FR is available in basic colours as indicated, others by arrangement:
Dark Grey
Black
Neutral

In-mould paint can be used to achieve exact colours, with further finishing effects applied afterwards. With good release agent items can be demoulded in one minute.

TYPICAL APPLICATIONS

- Scenography
- Leather & other costumery reproductions
- Many Film & TV production applications
- Coating polystyrene foam to form lightweight architectural features

PROCESSING

ARMOUR – LYTE FR is processed through specially designed dispensing equipment having accurate metering pumps for the two components. The components should be maintained at 65-70°C and mixed and sprayed by the appropriate equipment, on which Isothane technical staff can advise.

Ambient conditions should be suitable for PU processing, with particular emphasis on humidity. Armour Lyte FR should not be sprayed if the relative humidity is above 90% or if the substrate temperature is less than 3°C above the local dew point.

STORAGE, HANDLING AND PERSONAL PROTECTION

- ARMOUR – LYTE FR Resin should be stored in dry conditions at a temperature of 20 – 25°C.
- ARMOUR – LYTE H should be stored in dry conditions at a temperature of 20 – 25°C.
- ARMOUR - LYTE FR Resin has a shelf life of 6 months if stored at 20 – 25°C.
- ARMOUR - LYTE H has a shelf life of 6 months if stored at 20 – 25°C.
- Opened, part used containers must be resealed immediately after use.

The recommendations in our Safety Data Sheet for this product must be followed at all times. More general information is included in our publication “A Guide to the Safe Handling of Polyurethane Chemicals” and in the following Technical Data Sheet which is available on request:-

- Decontamination of Isocyanates using Isothane Decontaminant

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ADDITIONAL INFORMATION

ARMOUR - LYTE FR resin must be well agitated before each use, in order to effect re-dispersion of any pigment and Flame Retardants, which may have settled slightly during storage. Check before each use to ensure that the mixture is homogenous.

Recirculation of both components from the barrel, through the machine's heater blocks and back to the barrel, is recommended when using standard 2:1 or 1:1 transfer pumps, in order to prime the materials and machine. 30 minutes of recirculation to warm the components to around 40°C will be adequate.

TYPICAL PROPERTIES OF ARMOUR-LYTE FR

	Armour-Lyte FR Resin (neutral)	Armour Lyte H
Appearance	Cream coloured liquid	Hazy Yellow Liquid
Viscosity @ 25°C	500-1200cPs	300 – 800 cPs
Specific Gravity @ 25°C	1.25 – 1.30	1.08-1.12
Water Content	< 0.1%	N/A

Mixing Ratio: 100 parts Armour-Lyte FR Resin: 100 parts Amour-Lyte H (volume, mix tolerance +/-1%)

Process: Spray

ARMOUR-LYTE FR PROPERTIES

	UNITS	TYPICAL VALUES	TEST METHOD
Shore Hardness	°D	60 - 65	ASTM D2240
Tensile Strength	MPa	25	ASTM D638
Elongation	%	180	ASTM D638
Tear Strength	KN/m	100	ASTM D634, Die C
Fire Rating	Surface Spread of flame	Class 1	BS476 Part 7
Gel Time (sprayed @ 70°C)	Seconds	3 - 6	
Touch dry	Seconds	< 25	
Cure	80% of maximum tensile strength is attained within 24 hrs at 20°C		





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