

ARMOUR - FLEX

Polyurea Elastomer for Scenography

Product Description

ARMOUR - FLEX R is a resin system which, when combined with Armour - Flex H produces a resilient, durable polyurea elastomer that has been used for scenography and costumery in movies and TV such as **Gladiator, Band of Brothers and Troy**.

ARMOUR - FLEX is available in basic colours as indicated, others by arrangement:

Black

Dark Grey

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 reproduction
- Many Film & TV production applications

Processing

ARMOUR - FLEX is processed through specially designed dispensing equipment having accurate metering pumps for the two components. The components should be maintained at 35-55°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 is 90% or above or the substrate temperature is less than 3°C above the local dew point.



Isothane Limited, Newhouse Road
Huncoat Business Park, Accrington
Lancashire BB5 6NT UK
Telephone: + 44 (0) 1254 872555
Facsimile: + 44 (0) 1254 871522
Order Fax Line: +44 (0) 1254 398295
Email: info@isothane.com
Website: www.isothane.com
Registration No: 2975728



Certificate No. FM 21549



INVESTOR IN PEOPLE



Certificate No. EMS 68443

ARMOUR - FLEX

Polyurea Elastomer for Scenography

Storage, Handling and Personal Protection

- **ARMOUR - FLEX** should be stored in dry conditions at a temperature 20-25°C.
- Armour - Flex R resin has a shelf life of 6 months. Armour - Flex 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.

Additional Information

ARMOUR - FLEX R resin may require some agitation before use, in order to effect redispersion of any pigment. 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.

<u>Typical Properties of Armour - Flex</u>	<u>Armour - Flex R Resin</u>	<u>Armour - Flex H</u>
Appearance	Dark Amber Liquid	Hazy Yellow Liquid
Viscosity @ 25°C	340 - 450 cps	1500 - 2500 cps
Specific Gravity @ 25°C	1.0 - 1.1	1.08 - 1.12
Water Content	<0.01%	
Mixing Ratio:	100 parts Armour - Flex R Resin: 100 parts Armour - Flex H (by volume, mix tolerance ±1%)	
Process:	Spray	

This information is of a general nature and is supplied without recommendation or guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Liability for loss or damage through use cannot be accepted except for death or injury caused by negligence on the part of Isothane Ltd. Whilst these specifications are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are applied. Users must, by comprehensive testing, ensure suitability of product for own use. Without control or supervision of the preparation for and application of Isothane products, general guarantees cannot be offered.



Isothane Limited, Newhouse Road
Huncoat Business Park, Accrington
Lancashire BB5 6NT UK
Telephone: + 44 (0) 1254 872555
Facsimile: + 44 (0) 1254 871522
Order Fax Line: +44 (0) 1254 398295
Email: info@isothane.com
Website: www.isothane.com
Registration No: 2975728



Armour - Flex Properties

<u>Armour - Flex Properties</u>	<u>Units</u>	<u>Typical Values</u>	<u>Test Method</u>
Shore Hardness	° A	80 - 85	ASTM D2240
Density	g/cm ³	0.92 ± 0.3	
Tensile Strength	MPa	20	ASTM D638
Elongation	%	380	ASTM D638
100% Modulus	MPa	6.8	ASTM D638
300%	MPa	10	ASTM D638
Tear Strength	KN/m	65	ASTM D624, Die C
Abrasive Resistance (loss)	mg	150 max.	ASTM D4060

Reaction Profile

Gel Time	15 secs
Touch Dry	30 secs
Cure	80% of maximum tensile strength is attained within 24 hrs at 20°C



This information is of a general nature and is supplied without recommendation or guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Liability for loss or damage through use cannot be accepted except for death or injury caused by negligence on the part of Isothane Ltd. Whilst these specifications are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are applied. Users must, by comprehensive testing, ensure suitability of product for own use. Without control or supervision of the preparation for and application of Isothane products, general guarantees cannot be offered.



Isothane Limited, Newhouse Road
Huncoat Business Park, Accrington
Lancashire BB5 6NT UK
Telephone: + 44 (0) 1254 872555
Facsimile: + 44 (0) 1254 871522
Order Fax Line: +44 (0) 1254 398295
Email: info@isothane.com
Website: www.isothane.com
Registration No: 2975728



Certificate No. FM 21549



INVESTOR IN PEOPLE



Certificate No. EMS 68443