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ARMOUR SUPERFLEX
EXTRA-FLEXIBLE POLYUREA ELASTOMER

PRODUCT DESCRIPTION

ARMOUR - SUPERFLEX 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 furniture coating applications where a high level of flexibility is required.

ARMOUR - SUPERFLEX is available in a range of 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
- Overcoating of flexible foam (furniture seating)
- Foam encapsulation (buoyancy applications)

PROCESSING

ARMOUR - SUPERFLEX is processed through specially designed dispensing equipment having accurate metering pumps for the two components. The components should be pre-warmed by recirculating to 35-55°C and sprayed at 65-70°C using suitable plural component impingement mixing equipment, on which Isothane technical staff can advise.

Ambient conditions should be suitable for PU processing, with particular emphasis on humidity. Armour Superflex 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 SUPERFLEX RESIN should be stored in dry conditions at a temperature 20-25°C.
- ARMOUR SUPERFLEX RESIN has a shelf life of 6 months.
- ARMOUR-FLEX H has a shelf life of 6 months if stored at 20-25°C. When in use, a desiccant cartridge on the small bung of the isocyanate drum is recommended to eliminate moisture ingress into the drum and help prolong storage life
- Opened, part used containers must be resealed immediately after use.

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- 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:-
  1. Decontamination of Isocyanates using Isothane Decontaminant

ADDITIONAL INFORMATION

ARMOUR - SUPERFLEX 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.

TYPICAL PROPERTIES OF ARMOUR-FLEX

	Armour-SuperFlex R Resin	Armour Flex H
Appearance	Amber Liquid	Amber Liquid
Viscosity @ 25°C, cPs	350 - 700	700 - 1100
Specific Gravity @ 25°C, g/cm³	1.0 – 1.04	1.10 – 1.13
Water Content	< 0.1%	N/A

Mixing Ratio: 100 parts Armour-SuperFlex Resin : 100 parts Armour-Flex H (by volume, mix tolerance ±1%)

Process: Spray

ARMOUR-FLEX PROPERTIES

	UNITS	TYPICAL VALUES	TEST METHOD
Shore Hardness	°A	70	ASTM D2240
Density	g/cm³	0.92 ± 0.3	
Tensile Strength	MPa	13	ASTM 638
Elongation	%	300	ASTM 638

Gel Time (sprayed @ 70°C),	10-15 secs
Touch Dry	< 30 secs
Cure	80% of maximum tensile strength is attained within 24 hrs at 20°C

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