

## ARMOUR - FORM

### Replication and Moulding Polyurea Elastomer

#### Product Description

**ARMOUR - FORM R** is a polyurea based 100% solids, zero VOC resin system, which when combined with Armour - Form H will produce a resilient, durable elastomer. It is fast curing ( 4 - 5 mins ) and can be used at temperatures down to -15°C.

**ARMOUR - FORM** is available in a range of colours as indicated:

White	Black	Red
Yellow	Green	Blue
Orange	Grey	Brown

#### Typical Applications

Suitable for replication and moulding; object replication such as sculptures, rocks, statues, etc. It is possible to replicate any kind of shape, even undercuts and any kind of horizontal or vertical surface. Mould release agent is necessary.

#### Processing

**ARMOUR - FORM** is processed through specially designed dispensing equipment having accurate metering pumps for the two components. The components should be maintained at 40 - 60°C and mixed and sprayed by the appropriate gun, on which Isothane technical staff can advise.

Cured elastomer to be repaired should be abraded and traces of dust removed. Maximum adhesion will be obtained if the surfaces to be repaired are heated to a minimum of 35°C. Some surfaces will require the use of an Isothane primer.

To bond **ARMOUR - FORM** to the substrate, the substrate must be dry and its temperature at least 3°C above the local dew point. **ARMOUR - FORM** is hydrophobic so unaffected by damp substrates if it is meant to be non - bonded or demoulded.



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Certificate No. EMS 68443



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#### Storage, Handling and Personal Protection

- **ARMOUR - FORM** should be stored in dry conditions at a temperature 10 - 25° C.
- **ARMOUR - FORM R** Resin and Armour - Form H have a shelf life of 12 months if stored at 10 - 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 Sheets which are available on request:-

- Decontamination of Isocyanates using Isothane Decontaminant.

#### Additional Information

**ARMOUR - FORM 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.

Post Curing: articles need not be post cured.

<u>Typical Properties of</u> <u>Armour - Form</u>	<u>Armour - Form R Resin</u>	<u>Armour - Form H</u>
Appearance	Liquid - varying colours	Clear Amber Liquid
Viscosity 25° C	600 cps	1800 cps
Specific Gravity @ 25° C	1.0 - 1.1	1.1 - 1.2
Water Content	<0.01%	N/A
Mixing Ratio:	100 parts Armour - Form R Resin:	100 parts Armour - Form H (by volume, mix tolerance $\pm 1\%$ )
Process:	Spray	

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**Armour - Form Properties**

<b><u>Armour - Form Properties</u></b>	<b><u>Units</u></b>	<b><u>Typical Values</u></b>	<b><u>Test Method</u></b>
Shore Hardness	° A	50	
Tensile Strength	MPa	3.5	ASTM D638
Elongation	%	550	ASTM D638
Taber Abrasion	mg	335	H18, 1000 revs, 1000g

**Reaction Profile**

Gel Time	12 - 15 secs
Walk On	20 - 30 mins
Demould After	12 - 16 mins
Recoat Within	6 - 8 hrs



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