



## TECHNICAL DATA SHEET

# UREPAC<sup>®</sup> RIGID 90 160

### PRODUCT DESCRIPTION

UrePac™ Rigid 90 160 is a slow reactivity, two component polyurethane (PUR) rigid foam based on polyether polyol and MDI isocyanate. The system has been developed so it can be dispensed through low and high pressure equipment or hand-mixed and poured. The foam was designed for use as a high density PUR moulded block foam with a core density of 160 kg/m<sup>3</sup> for general purpose structural and applications.

### PRODUCT FEATURES

- High strength
- Slow Reactivity
- 1:1 w/w mix ratio

### UREPAC RIGID 90 160 POLYOL SPECIFICATION

**Appearance:** Clear amber liquid

Specific Gravity (22°C): 1.08 ± 0.02 g/mL

Viscosity (Brookfield) (22°C): 900 ± 200 mPa.s

*Spindle 3 Speed 100*

### UREPAC ISO2001 MDI ISOCYANATE SPECIFICATION

**Appearance:** Clear brown liquid

Specific Gravity (22°C): 1.23 ± 0.02 g/mL

Viscosity (Brookfield) (22°C): 210 ± 70 mPa.s

*Spindle 1 Speed 50*



## MIXED SYSTEM SPECIFICATION

**Mix Ratio:** By Weight 100 Polyol : 100 Isocyanate

Test	Specification	Units
<b>Cream Time (22°C):</b> <i>Time from when mixing commences till the liquid starts to expand.</i>	90 ± 10	seconds
<b>String time (22°C):</b> <i>Time from when mixing commences till "strings can be pulled from the surface of the rising foam.</i>	270 ± 30	seconds
<b>Rise time (22°C):</b> <i>Time from when mixing commences till the foam finishes expanding.</i>	330 ± 50	seconds
<b>Typical Demould 22°C)</b>	Overnight	
<b>Free Rise Density (22°C):</b>	150 ± 5	kg/m <sup>3</sup>

*(Obtained from Laboratory 50g cup test, results will vary depending on mix quantities)*

## TYPICAL CURED FOAM PROPERTIES

Test	Method	Specification
<b>Core Density:</b>	ASTM D1622	160 ± 5 kg/m <sup>3</sup>
<b>Dimensional Stability (70°C)</b>	+/-5% Volume (@ 24 hours)	Pass
<b>Closed Cell Content:</b>	ASTM D6226	95-97%
<b>Compressive Strength:</b>	ASTM D1621	2000 ± 100 kPa
<b>Water Absorption</b>	ASTM D8242	< 1%

*After 7 days cure @ 22°C unless otherwise specified.*



## PACKAGING OPTIONS:

Packaging	UrePac Rigid 90 160 Polyol	UrePac ISO2001 MDI Isocyanate
205L Closed Head Drum	<b>210kg</b>	<b>250kg</b>
1000L IBC	<b>1050kg</b>	<b>1250kg</b>

## STORAGE

**POLYOL** should be stored in closed containers under dry conditions out of direct sunlight between 18 and 25°C.

**ISOCYANATE** should be stored separately from the polyol component, but under the same conditions.

Both products will have a minimum shelf life of six months when stored under these conditions.

**CURED PRODUCT:** Like all polyurethanes based on aromatic isocyanates this foam is **not** UV stable and will have surface discolouration and degradation if exposed to UV radiation and sunlight. Please speak to our technical consultants regarding your options if this product is required for use in external applications.

## PROCESSING CONDITIONS:

*All processing conditions are given as a guide only, it is the responsibility of the customer to satisfy themselves that the product is suitable for their requirements by running closely monitored trials prior to production.*

### COMPONENT PREPARATION

**POLYOL** should be mixed each day prior to use as the components can separate out. If this component is held in day tanks they should be continuously agitated to prevent any separation during production.

**ISOCYANATE** does not need to be mixed prior to use.

Both Components should be preconditioned to 22-25°C to ensure that the components will have consistent reactivity and performance. If processing in a machine this usually requires recirculation for at least an hour prior to production commencing.

### MOULD TEMPERATURES

Mould temperatures should be conditioned to 35-45°C to ensure optimal skin definition and demould times for this product.



## DISPOSAL

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Liquid Systems: Liquid polyol or isocyanates should be disposed of with an EPA approved industrial waste company which meet all applicable federal, state and local laws and regulations.

Cured Urethanes: Fully reacted and cured polyurethanes are inert and can be disposed of as regular landfill.

Container: Dispose of decontaminated drums in accordance with all applicable federal, state and local laws and regulations.

**Do Not Re-use Empty Container.**

**Do Not Cut or Weld Empty Container.**

**WATER CONTAMINATION CAN CAUSES DANGEROUS PRESSURE BUILD UP IN ISOCYANATE DRUMS**

## DISCLAIMER

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This information is given in good faith but without warranty and is supplied to users based on our general experience and, where applicable, on the results of tests on samples of typical manufacture. However, because of the many factors which are outside our knowledge and control that can affect the use of these products, it is imperative that the end user is satisfied that the material will meet their individual processing and performance requirements. Pacific Urethanes Pty Ltd cannot accept liability for any injury, loss or damage resulting from reliance upon this information.

All sales of this product shall be subject to Pacific Urethanes' Terms and Conditions of Sale. For a copy of these terms please contact us at [info@pacificurethanes.com](mailto:info@pacificurethanes.com).

For additional information, consult the Material Safety Data Sheet for this product.

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