

## TECHNICAL DATA SHEET

# UREPAC® CAST 1800 40

### PRODUCT DESCRIPTION

UrePac® Rigid 1800 40 is a two component, polyurethane cast elastomer comprising of a polyether polyol (PPG) and MDI based isocyanate. The system has been developed with a long pot-life, low shrinkage and high flexibility for mould making applications.

### PRODUCT FEATURES

- TDI, Mercury and MOCA free
- Slow Reactivity
- Low viscosity
- Low Shrinkage

### UREPAC CAST 1800 40 (POLYOL) SPECIFICATION

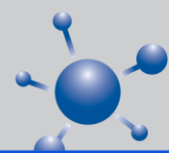
<b>Appearance:</b>	Clear Straw liquid
Specific Gravity (22°C):	1.03 +- 0.02 g/ml
Viscosity (Brookfield) (22°C):	1000 +- 500 mPa.s

*Spindle 3 Speed 100*

### UREPAC 2312 (ISOCYANATE) SPECIFICATION

<b>Appearance:</b>	Clear Pale Yellow liquid
Specific Gravity (22°C):	1.10 +- 0.02 g/ml
Viscosity (Brookfield) (22°C):	4,000 +- 2,000 mPa.s

*Spindle 4 Speed 30*



### MIXED SYSTEM SPECIFICATION

**Mix Ratio:** By Weight 100 Polyol: 40 Isocyanate

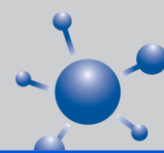
Test	Specification	Units
Gel Time (22°C):	1,800+-300	seconds
Cure Time (Mould 50°C):	120+-30	minutes

*(Obtained from Laboratory 118g cup test, results will vary depending on mix quantities)*

### TYPICAL CURED ELASTOMER PROPERTIES

Test	Method	Specification
<b>Hardness:</b>	ASTM D1737	40+-5 Shore A
<b>Solid Density (22°C)</b>		1.07 g/ml
<b>Tensile Strength</b>	ASTM D412	8 +-2 N/mm <sup>2</sup>
<b>Elongation</b>	ASTM D412	>500%
<b>Tear Strength</b>	ASTM D624 (Die C)	20 N/mm
<b>Taber Abrasion</b> <i>H22 wheel 1kg per 1000 cycles</i>	ASTM D4060	200 mg loss

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



## PACKAGING OPTIONS:

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Packaging	UrePac Cast 1800 40 Polyol	UrePac 2312 Isocyanate
20L Pails	20kg	22kg
60L Drums	60kg	66kg
205L Closed Head Drum	210kg	220kg
1000L IBC	1050kg	1100kg

## STORAGE

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**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 elastomer 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:

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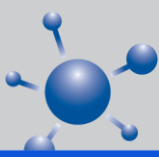
*All processing conditions are given as a guide only, it is the responsibility of the customer to satisfy themselves that the product is suitable for their requirements by running closely monitored trials prior to production.*

### COMPONENT PREPARATION

**POLYOL** should be mixed each day prior to use as the components can separate out overnight. If this component is held in day tanks they should be continuously agitated to prevent any separation during production. Please do not over mix as the aeration will reduce the physical properties of the resultant elastomer.

**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. We recommend vacuum degassing of the polyol and isocyanate for optimal physical properties.



## MOULD TEMPERATURES

Mould temperatures should be conditioned to 50-60°C to ensure optimal demould times and quality 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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