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# TECHNICAL DATA

## Erathane MF165

### RIGID MOULDING FOAM

**Erathane MF165** is a two part polyurethane system comprises a polyol and isocyanate component. When mixed in their correct proportions produce a fine-celled foam with a free rise density of 165 kg/m<sup>3</sup>.

The system is designed for use in moulding applications where good skin is required. The foam can be used for moulding components such as imitation wood, computer cabinets, shoe heels as well as for moulding fishing lures.

The system can be manually drill mixed (@ a minimum speed 2000 rpm) and also processed through low-pressure plural polyurethane dispensing equipment.

## COMPONENT PROPERTIES

	<b>Polyol</b>	<b>Isocyanate</b>
<b>Appearance</b>	Clear, honey coloured liquid	Dark brown liquid
<b>Brookfield Viscosity (cps)</b>	1045	250
<b>Specific Gravity</b>	1.07	1.22

## REACTION PROFILE

Laboratory results based on hand-mix @ 20°C

Mix ratio by weight (Polyol: Iso) 100:110

<b>Mix time (seconds)</b>	20
<b>Cream time (seconds)</b>	60
<b>Gel time (seconds)</b>	105
<b>Tack free time (seconds)</b>	115
<b>Free rise density (kg/m<sup>3</sup>)</b>	165

This information is of general nature and is supplied without recommendation of guarantee. It does not make claim to be free from patent infringement. Properties shown are typical and do not imply specification tolerances. Era Polymers cannot accept liability for loss or damage through use. Whilst these technical details are based on expert knowledge, practical experience and laboratory testing, successful application depends upon the nature and conditions in which the products are supplied. Users must, by comprehensive testing, evaluate this product in their own application.



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## TYPICAL PHYSICAL PROPERTIES

<b>Foamed Density (Free Rise) (kg/m<sup>3</sup>)</b>	165	
<b>Compressive Strength (@ 10%) (Parallel to rise) (MPa)</b>	1.10	Test Method AS2498.3
<b>Compressive Strength (@ 10%) Perpendicular to rise) (MPa)</b>	1.45	Test Method AS2498.3
<b>Compressive Stress (MPa)</b>	2.2	Test Method AS2498.4
<b>Closed Cell Content (%)</b>	91	Test Method AS2498.7
<b>Thermal Conductivity (initial) (W/mK)</b>	0.021	
<b>Thermal Conductivity (after 24 hrs) (W/mK)</b>	0.024	

### Dimensional Stability

Measured as % change in dimension

Test Method AS2498.6

	<b>Width</b>	<b>Length</b>	<b>Thickness</b>
<b>1 week @ 95°C (%)</b>	0.32	0.22	0.19
<b>1 week @ -15°C (%)</b>	0.07	0.03	0.04
<b>2 weeks @ 95°C (%)</b>	0.34	0.24	0.34
<b>2 weeks @ -15°C (%)</b>	0.08	0.06	0.08

## STORAGE CONDITIONS AND HANDLING

The components are sensitive to humidity and should at all times be stored in sealed drums. The recommended storage temperatures are 18-25°C, which will give a normal shelf life of 3 months. At elevated temperatures problems may arise with pressure build-up within the drums. When opening these drums extreme care must be exercised in releasing the internal pressure. It is recommended that the drum contents should be mixed well before use.

## HEALTH AND PERSONAL PROTECTION

Before handling these chemicals please consult the Material Safety Data Sheets for the two components. The polyol component contains tertiary amines. Contact with the skin or eyes must be avoided. Safety goggles and protective gloves should be worn whenever handling both of the chemicals. Splashes that come into contact with the skin must be wiped off immediately and the contaminated area washed with soap and water. Splashes in the eye must be flushed immediately with plenty of clean running water. If irritation occurs thereafter contact an eye specialist.

## GENERAL INFORMATION

At temperatures less than 15°C the reaction rate of **Erathane MF165** will be much slower resulting in an increase in density, and reduction in foam yield and quality. Also at temperatures above 30°C the cream time will be drastically reduced.

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