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AUSTRALIA
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Erapol EML155 Series

MEDIUM PERFORMANCE POLYETHER
URETHANE ELASTOMER

TECHNICAL DATASHEET

Erapol EML155 is a 3 component system based on MDI-PPG which when reacted can give a range of hardness varying from 95A – 70D.

Having a PPG backbone means that this system is considerably cheaper than systems made from PTMEG. It finds applications in those areas where the outstanding properties of PTMEG based materials are not needed.

The **Erapol EML155** Series has some clear advantages in terms of processing, including low viscosity of all three components at processing temperatures; and lower chemical hazards when handling the components, when compared with TDI systems.

Application

The **Erapol EML155 series** is ideally suited to machine dispensing, especially where large mouldings are required.

Product Specification

	Part A	Part B	Part C
% NCO	15.5 ± 0.2	-	-
Specific Gravity at 25°C	1.15	1.01	1.03
Viscosity at 25°C (cps)	1800	140	90
Viscosity at 40°C (cps)	850	-	-
Colour	Clear Yellow Liquid	Clear Colourless Liquid	Clear Colourless Liquid



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.

Processing Procedure

The **Erapol EML155 Part A** and **Part B** are liquid at room temperature. The **Part C** is liquid at temperatures above 15°C.

It is recommended that **Part A** be processed at 40°C, **Part B** and **Part C** can be processed at 25°C.

1. **Erapol EML155 Part A** should be weighed into unlined metal, plastic or glass containers and heated to the recommended processing temperature 40°C and thoroughly degassed at 1-5 mmHg of vacuum until excessive foaming stops.
2. The **Part B** should be added to the **Part A** followed by the addition of **Part C**. After adding the **Part B** and **Part C**, mix thoroughly for approximately 1 minute, being careful not to introduce air into the mixture, and degas at 1-5 mm for a further 1-2 minutes.
3. Pour the mixed polyurethane into moulds that have been preheated to 40-50°C and pre-coated with release agent - **Salease**.
4. Post cure in a 40-50°C oven for 16 hours.

Mixing and Curing Conditions

	90A	95A	70D	75D
Part A	100	100	100	100
Part B	40.3	35.0	14.0	8.8
Part C	12.1	12.6	14.5	15.0
% Theory	95	95	95	95
Part A Temp (°C)	40	40	40	40
Part B Temp (°C)	25	25	25	25
Part C Temp (°C)	25	25	25	25
Mould Temp (°C)	40 – 50	40 – 50	40 – 50	40 – 50
Oven Temp (°C)	40 – 50	40 – 50	40 – 50	40 – 50
Pot_life (Minutes)	5	4	4	4
Demould Time at 40-50°C (Minutes)	45	45	45	45
Post Cure at 40-50°C (Hours)	16	16	16	16

The above results are based on 200 grams of mixed sample.

Typical Cured Properties

Hardness	(Shore A)	90	95	-	-
Hardness	(Shore D)	-	-	70	75
Tensile Strength	(MPa)	16.5	18.7	27.3	27.8
100% Modulus	(MPa)	8.1	8.1	23.0	-
300% Modulus	(MPa)	14.9	15.6	-	-
Angle Tear Strength, Die C	(kN/m)	35.0	41.0	85.8	103.6
Trouser Tear Strength	(kN/m)	12.4	13.1	21.9	27.8
Elongation	(%)	346	389	170	130
DIN Abrasion Resistance	(mm ³)	76	63	115	94
Cured Density		1.15	1.16	1.18	1.19

Handling Precautions

The **Erapol EML155 Part A** is based on MDI and is particularly suited for applications where the use of TDI prepolymers and the generation of TDI vapours might be of a concern. Please consult the product MSDS for further information.