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Eragel ZR

POLYETHER SOFT GEL

TECHNICAL DATASHEET

ERAGEL ZR is a TDI polyether type polyurethane soft gel with various mix ratios to achieve hardness on the low Shore A scale and OO scale. The product contains a residual tackiness after cure.

It offers advantages in that it can be readily processed and cured at room temperature. The convenient mix ratio allows easy processing either by hand or via machine mixing.

Product Specification

	ISOCYANATE PREPOLYMER (A)	POLYOL CURATIVE (B)
% NCO	3.0 - 3.4	-
Specific Gravity at 25°C	1.04	1.02
Viscosity at 25°C (cps)	6900	1000
Appearance	Slight straw hazy liquid	Water clear liquid

Mixing and Curing Conditions

Isocyanate Prepolymer (A)	(pbw)	100
Polyol Curative (B) ***	(pbw)	100
Recommended % Theory		100
Erapol Temperature	(°C)	25 – 30
Curative Temperature	(°C)	25 – 30
Pot Life at 25°C mix temperature	(mins)	5 – 7
Cure		24 hrs at 25° C will result in 70% cure. Fully cured at 7 days at 25°C.
Demould Time at 25°C	(hrs)	~ 4 - 5

Note: Potlife passed on 200 grams liquid mixed at 25°C.

*** Mix ratio on this product can be varied to change the hardness (refer to the table below)



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Physical Properties

Properties presented below are to be used as a guide and not intended for specification purposes.

Mix Ratio (Part A / Part B)	Percent Theory	Hardness (Shore)
100/140	140	9 00
100/130	130	24 00
100/120	120	40 00
100/110	110	6 A
100/100	100	10 A
100/95	95	13 A
100/90	90	16 A
100/85	85	18 A
100/75	75	25 A

ERAGEL ZR can be mixed by hand or readily processed through suitable polyurethane dispensing equipment.

NOTE: Both Part A and B components are moisture sensitive. Once opened, containers should be purged with nitrogen, if they are to be stored for a period of time. **Part B is a blend of different raw materials and it should be mechanically mixed before removing any material from the drum or pail.**

Processing Procedure

- Carefully weigh the correct proportions of the two components together in one container, mix thoroughly. Be careful not to entrap air whilst mixing. It is recommended to degas the isocyanate (Part A) and polyol (Part B) separately first to remove entrapped air prior to mixing and then applied degassing after mixing for bubble free sample.
- Pour the mixed material into moulds that have been prepared with release agent, being careful to avoid trapping air.
- Allow casting to cure before demoulding.

Adhesion

Adhesion of Erapol based elastomers to various substrates is at best marginal if a primer is not used. Please consult Era Polymers for specific recommendations to improve adhesion.

Handling Precautions

ERAGEL ZR should be used in well-ventilated areas. Avoid breathing in vapours and protect skin and eyes from contact.

In case of skin contact, immediately remove excess, wash with soap and water. For eye contact, immediately flush with water for at least 15 minutes. Call a physician.

If nose, throat or lungs become irritated from breathing in vapours, remove exposed person to fresh air. Call a physician.