



PRODUCT DATA SHEET

UI-5751

LIQUID CASTABLE ELASTOMER 75 SHORE A

1. PRODUCT:

UI-5751 is a two component, polyester based, liquid urethane casting system used for a variety of applications. The product contains no TDI or Moca.

2. KEY FEATURES:

- Easy to Handle and Use
- Superior Abrasion Resistance
- Excellent Tensile Strength
- High Resilience
- Available in a Variety of Colors
- Good Chemical Resistance
- Wide Temperature Range Usage
- Superior Elongation
- High Tear Strength
- Good Compression Set

3. SUGGESTED APPLICATIONS:

- Molded Parts
- Potting and Encapsulating
- Molds
- Gaskets and Diaphragms
- Roller Facings
- Bumper Pads
- Concrete Stamp Pads

4. SHELF LIFE:

Shelf life of UI-5751 is one (1) year from shipping, providing it is stored in a cool dry place in unopened containers.

5. STANDARD COLOR:

Black and Natural Amber

6. STANDARD PACKAGING:

- Quart Kits
- Gallon Kits
- Pail Packs (Pail of A and Pail of B)
- Drum Packs
- (Drum of A and Drum of B)

7. GENERAL PROCESSING INFORMATION:

- A. PROCESSING TEMPERATURES:** The higher the temperatures, the faster the reaction rates. Reaction rates are influenced by the temperature of the components and mold, the size of the batch being processed, the shape of the cavity being filled and the ambient conditions.
- B. SURFACE PREPARATION FOR MOLDS:** Porous surfaces, i.e., wood and plaster in contact with UI-5751 must be well sealed with a urethane compatible sealer. An acrylic sealer is generally used. Allow final sealer coat to dry for 30-45 minutes and apply a suitable release agent.

C. MOLD RELEASE AGENTS: The user must perform all pertinent tests in order to determine the suitability of those products in the particular application. Silicone type release agents such as UI-9900 can be used where neither adhesion nor paintability of the molded part is required. A non silicone type may be used where paintability of the molded part is required. Frequent mold cleaning may be necessary to prevent mold release agent build up.

D. ADHESION TO METAL AND WOOD: In order to ensure good polymer adhesion, substrate must be free of rust, oils and other impurities. Substrate may be sanded and degreased with a solvent such as Methyl Ethyl Ketone (MEK). Priming steel and wood with a urethane compatible primer such as UI-9906 will enhance polymer adhesion and application longevity. Other materials being primed may require experimentation in order to ensure optimum polymer adhesion. For further information regarding primers, contact Preformed Line Products' Technical Service Department.

E. WEIGHT RATIO: Must be maintained within $\pm 2.0\%$. Deviation from the ratio and processing conditions recommended herein will alter the properties of this product.

F. CAST PARTS: To produce cast parts without bubbles, the mixture of Part A and Part B should be placed under a vacuum prior to pouring into the mold. The addition of UI-9908 up to 0.5% by weight or about 2.5 ml per pound of mixed system will facilitate air release under vacuum. The ratio of UI-9905 may vary depending on individual product requirements and the amount of material being degassed.

G. HAND PROCESSING PROCEDURE: For quart and gallon kit packs, Pour Part A into Part B container. For pail packs and drum packs, weigh Part A and Part B to exact ratio by weight and pour into a clean, non porous container. The two components should be mixed thoroughly by hand, paddle or power mixer for the specified mix time (see Properties section). Caution must be used to generate only a small vortex when mixing to prevent mixing excess air into the mixture. Scrape the sides and bottom of the mixing container periodically as unmixed material has a tendency to adhere to surfaces of mixing container. Pour the mixed material into the prepared mold, pattern or cavity and allow to cure. Do not scrape material from sides of mixing container while pouring material. Proper application of a parting agent is required for satisfactory release from a mold.

H. MAINTENANCE AND CLEAN UP: Clean up of the automatic mixing equipment can be performed with the use of a non flammable cleaning solvent, such as Methylene Chloride. Methylene Chloride is a hazardous chemical, therefore chemical data, legislative acts, regulatory guidelines and manufacturer's precautions must be read and understood before use. Hand mixing equipment may be cleaned with a cleaning solvent such as Methyl Ethyl Ketone (MEK). MEK is a highly flammable chemical, therefore necessary safety precautions must be exercised.

I. PRECAUTIONS: Normal handling precautions must be exercised. Use in a well ventilated area and wash hands before eating or smoking. Personnel handling UI-5751 must wear protective gloves, glasses and clothing. Do not burn UI-5751 as it will release toxic vapors.

8. TECHNICAL SERVICE:

Technical assistance is available by contacting Preformed Line Products' Technical Service Department.

9. STORAGE, SAFETY AND HANDLING:

Store in a cool dry area. Avoid temperatures above 85°F and below 50°F. Before using, read carefully Preformed Line Products' General Information Bulletin on Safety, Handling, Storage, Packaging, Technical Services and Warranty. Material Safety Data available upon request. UI-5751 is packaged in sealed containers with a nitrogen blanket to prevent moisture contamination. Therefore, container should not be opened until ready to use. If the total amount of either Part A or Part B is not used

initially, the remaining portion of unmixed materials should be re-blanketed with nitrogen or UI-9904 "Magic Blanket", an inert gas available in aerosol cans.

10. PREFORMED LINE PRODUCTS AVAILABLE FOR USE WITH UI-5751:

UI-9900 Silicone Mold Release
 UI-9904 "Magic Blanket" Aerosol Inert Gas
 UI-9908 Bubble Release Agent
 UI-9909 Adhesion Promoter

11. WARRANTY:

The statements made herein are based on our research and the research of others and are believed to be accurate. No guarantee of their accuracy is made, however. Neither the seller nor the manufacturer has any knowledge or control concerning the purchaser's use of the product. No express warranty is made by the seller or the manufacturer with respect to the results of any use of the product. Neither seller nor manufacturer assumes any liability for personal injury, loss or damage resulting from the use of the product. In the event that the product shall prove defective, the buyer's exclusive remedy shall be repayment of the purchase price, or, at the manufacturer's option, replacement of the non-conforming product. The buyer expressly waives any claim to additional damages, including consequential damages. Warranty claims are void unless made in writing within thirty (30) days after purchase. Warranty runs exclusively to the benefit of the original buyer.

NOTE:

Prior to use, customer should thoroughly evaluate to determine suitability for use intended.

12. PHYSICAL PROPERTIES (TYPICAL)		
PROPERTY	RESULT	TEST METHOD
Shore Hardness	75 ± 2 A	D-2240
Standard Colors (Other Colors Available)	Natural Amber or Black	—
Mix Ratio Part A to Part B		—
By Weight	70A / 100B	
By Volume	61.5A / 100B	
Weight Per Gallon		D-1475
Part A	10 lbs	
Part B	8.6 lbs	
Mix Time	3 min	—
Pot Life	20 min	D-2471
Gel Time (1lb mass @ 75°F)	30 min	D-2471
Demold Time		—
@ 75°F (24°C)	4 hours	
@ 175°F (79°C)	1 - 2 hours	
Complete Cure		—
@ 75°F (24°C)	7 days	
@ 175°F (79°C)	2 - 3 days	
Peak Exotherm	less than 160°F	—
Elongation, Ultimate	440%	D-412
Tensile Strength	1500 psi	D-412
Modulus (100%)	700 psi	D-412
Tear Strength, Die C	200 pli	D-624
Compression Set	15%	D-695
Tear Strength, Split	32 pli	D-470
Abrasion Resistance (Tabor)	5.0	CS-17 MG Lost; 1000Gm/1000Rev
Specific Gravity (75°F)	1.2 Part A 1.12 Part B	—
Resilience (Rebound)	56	Bashore
Linear Shrinkage	less than 0.003 in/in	D-2566
Shelf Life (Unopened Containers)	1 year	—
Solids	100%	—