



PRODUCT DATA SHEET

UI-5900

LOW COST, FAST CAST LIQUID TWO COMPONENT URETHANE SYSTEM

1. DESCRIPTION

UI-5900 fast cast system is a two component liquid polyurethane compound, formulated for casting wheels and other manufactured parts requiring high production rates. This system does not contain any TDA 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
- Fast Demold Time
- Wide Temperature Range Usage
- Superior Elongation
- High Tear Strength

3. STANDARD PACKAGING

DRUM PACK	
Part A (Polyol)	55 Gal. Drum (450 lbs.)
Part B (Isocyanate)	55 Gal. Drum (500 lbs.)
Net Unit Weight	950 lbs.

4. APPLICATION

Application procedures will vary depending on parts being manufactured and production equipment. It is recommended that both Part A and Part B be preheated and maintained at 100°-105°F when being used. The system is preadjusted to give a 30-40 second gel time at this temperature range. The system can be adjusted differently for specific applications. Contact Preformed Line Products for details.

UI-5900 fast cast system can be cast in either metal or plastic molds. UI-5185 mold material has a successful history of use with this system.

Due to small lot-to-lot variances, the specific mix ratio may vary ± 3% from the standard mix ratio.

For best results, mold surfaces should be preheated and maintained at 140°-160°F. Demold time at this temperature range is 90 - 120 seconds.

UI-5900 fast cast system performs exceptionally well in rim equipment when gel times are supplied in a 10-15 second range. This will result in a demold time of less than one minute per part.

5. TECHNICAL SERVICE

Technical service on specific applications is available by contacting Preformed Line Products' Technical Service Department.

6. 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.

7. 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.

8. PHYSICAL PROPERTIES (TYPICAL)		
PROPERTY	RESULTS	ASTM TEST METHOD
Shore Hardness (Shore A)	90 ± 2	D2240
Mix Ratio		
by Weight	91A/100B	PLP R&D
by Volume	0.78A/1.0B	PLP R&D
Viscosity - CPS		
Part A (Isocyanate)	400	D2393
Part B (Polyol)	640	D2393
Weight per Gallon		
Part A lbs.	10.0	PLP R&D
Part B lbs.	8.6	PLP R&D
Mix Time (Seconds)	20	PLP R&D
Gel Time (@ Room Temperature)	25 - 90	D2471-71
Seconds		
Demold Time (@ 140-160°F)	90 - 120	PLP R&D
Seconds		
Cure Time		
95% - Hours	24	PLP R&D
Complete - Days	2 - 3	PLP R&D
Tensile Strength - PSI	2700	D412-80
Elongation, Ultimate - %	380	D412-80
Modulus (100%) - PSI	1150	D412
Compression Set - %	15	D695
Tear Strength, Die C - PLI	320	D624-81
Tear Strength, Split - PLI	42	D470
Abrasion Resistance (Tabor)	0.12	CS-17
MG Lost; 1000 GM/1000 REV		
Specific Gravity (25°C)	1.2 Part A 1.12 Part B	PLP R&D
Resilience (Rebound) - %	54	BASHORE
Lineal Shrinkage - %	1.6	D2566
Lineal Coefficiency of Expansion - in/in°F	1.03 X 10 ⁻⁴	D2566
Shelf Life - Months	12	PLP R&D
Solids - %	100	PLP R&D