



LUC-4105  
LOWEX CASTING  
URETHANE  
SLOW REPRODUCTION  
URETHANE



www.CASSpolymers.com  
31200 Stephenson Hwy

800.344.7776  
Madison Heights MI 48071

ADTECH@CASSpolymers.com  
Ph 248.588.2270 Fax 248.588.5909

**DESCRIPTION**

SUPER LOWEX LUC-4105 is a rigid urethane polymeric system developed to create a low exotherm, fast set casting system with "safety OSHA handling" characteristics that can be used in same day tooling and reproduction applications. LUC-4105 meets the current and future demands for today's principal of "just in time" tooling and manufacturing requirements. LUC-4105 is an easy to use system and offers a low mixed viscosity with exceptional air release. The fast set chemistry and low exotherm on cure in thicknesses from 1/8" to 10" produce an exceptional duplication with a tough, durable surface to produce a dimensionally accurate casting or reproduction with "nil" shrinkage. The set fast curing capabilities of LUC-4105 make it possible to demold within 2 hours. (NOTE: Larger casts will reach a demoldable state quicker than a smaller cast). Color available: Grey. **Typical applications include: Prototype parts, Duplicating mandrels, Tracer models, Matchplate fixtures, Latex molds, Core boxes, Nesting fixtures, Vacuum form molds, Trim fixtures, Production parts, and Pattern and core duplications.**

**HANDLING CHARACTERISTICS @ 25°C/77°F**

Mix Ratio (by weight or by volume) .....	100R/100H
Density .....	14.4 lbs/gal
.....	0.062 lbs/cu in
Mixed Viscosity .....	1,450 cps
Gel Time (500 gram mass) .....	10-12 minutes
Resin Color.....	Grey
Hardener Color.....	Tan
Mixed Color .....	Grey
Demold Time.....	2 hours
Machinability .....	Excellent
Finishing.....	Paintable
Shelf Life Resin & Hardener (in original unopened containers) .....	2 years

**PHYSICAL PROPERTIES**

Tensile Strength (ASTM D-638.91).....	3,544 psi
Tensile Elongation (ASTM D-638.91) .....	0.805%
Tensile Modulus (ASTM D-638.91).....	604,400 psi
Compressive Strength (ASTM D-695.91) .....	7,321 psi
Compressive Modulus (ASTM D-695.91) .....	261,100 psi
Flexural Strength (ASTM D-790.92) .....	5,460 psi
Flexural Modulus (ASTM D-790.92) .....	835,500 psi
Cast Linear Shrinkage (ASTM D-2566.86).....	0.0002 in/in
Coefficient of Thermal Expansion (ASTM D-696.91) .....	1.85 x 10 <sup>-5</sup> in/in °F
Glass Transition Temperature (Tg) .....	177.6°C/351.7°F
IZOD Impact (ASTM D-256.93a).....	5.21 in-lb/in
Moisture Absorption 24 Hour (ASTM D-570.88).....	0.304%
Shore Hardness (ASTM D-2240.91).....	80-82 Shore D

\*Super Lowex LUC-4105 will bond to itself. No bleed out or distillate color.

**MIXING INSTRUCTIONS FOR LOWEX LUC-4105**

Stir components A & B separately until they are homogenous. The systems are color coded to insure a perfect mix. Pour equal parts of A & B into a mixing container and mix at slow speed with a variable speed drill motor for 30-60 seconds. Remove mixer and immediately pour into prepared mold. The total amount of material mixed should be poured within five minutes after mixing. If initial mix does not fill mold, mix additional material and complete the pour. LOWEX LUC-4105 can be cast against itself as it has excellent secondary bonding properties.

NOTE: LOWEX LUC-4105 **DOES NOT** CONTAIN TOLUENE Di-ISOCYANATE (TDI)

**STORAGE AND HANDLING**

Part A and Part B of this system are moisture sensitive. Containers should be purged with dry nitrogen each time they are opened, unless the contents are used within one day.

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