



LUC-4101
LOWEX CASTING
URETHANE
 ABRASION RESISTANT,
 SEMI-RIGID REPRODUCTIONS

PRODUCT BULLETIN



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DESCRIPTION

SUPER LOWEX LUC-4101 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-4101 meets the current and future demands for today's principal of "just in time" tooling and manufacturing requirements. LUC-4101 is an easy to use system which 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-4101 make it possible to demold within 1-2 hours. **(NOTE: Larger casts will reach a demoldable state quicker than a smaller cast).** Colors available are Black and Tan. **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 & core duplications.**

HANDLING CHARACTERISTICS @ 25°C/77°F

Mix Ratio (by weight or by volume)	100R/100H
Density (Mixed)	14.4 lbs/gal
.....	0.062 lbs/cu in
Mixed Viscosity	1,450 cps
Gel Time (500 gram)	6-8 minutes
Resin Color.....	Black or Tan
Hardener Color.....	Tan
Mixed Color	Black or Tan
Demold Time.....	1-2 hours
Machinability	Excellent
Finishing.....	Paintable
Shelf Life Resin & Hardener (in original unopened containers)	2 years

PHYSICAL PROPERTIES

Tensile Strength (ASTM D-638.91).....	3,458 psi
Tensile Elongation (ASTM D-638.91)	0.898%
Tensile Modulus (ASTM D-638.91).....	603,400 psi
Compressive Strength (ASTM D-695.91)	6,485 psi
Compressive Modulus (ASTM D-695.91)	229,900 psi
Flexural Strength (ASTM D-790.92).....	5,026 psi
Flexural Modulus (ASTM D-790.92).....	650,000 psi
Cast Linear Shrinkage (ASTM D-2566.86)	0.0002 in/in
Coefficient of Thermal Expansion (ASTM D-696.91)	3.374 x 10 ⁻⁵ in/in °F
Glass Transition Temperature (Tg)	177.6°C/351.7°F
IZOD Impact (ASTM D-256.93a).....	5.6 in-lb/in
Moisture Absorption 24 Hour (ASTM D-570.88).....	0.237%
Shore Hardness (ASTM D-2240.91).....	75-78 Shore D
Exotherm (17.7 lb mass)	166.8°F

*Super Lowex LUC-4101 will bond to itself. No bleed out or distillate color.

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MIXING INSTRUCTIONS FOR LUC-4101

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-4101 can be cast against itself as it has excellent secondary bonding properties.

NOTE: LOWEX LUC-4101 **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.

Revised 4/29/10
Supercedes 9/29/08