55 Hilton Street, Easton PA 18042
(269) 488-4000
www.alumilite.com

TECHNICAL DATA SHEET

Clear & Clear Slow

Alumilite Clear casting system produces a hard clear cast piece that polishes beautifully. The material has excellent cosmetic detail and is easy to use. The Clear can be dyed or pigmented to obtain beautiful colors and finishes. Clear is great for making quick, cosmetically clear parts, or prototypes. Recommended for industrial purposes only.

PRODUCT SPECIFICATIONS	
Mix Ratio	1:1 by weight
Mixed Viscosity	450 cps
Working Time (Clear)	7.0 minutes
Working time (clear slow)	12.0 minutes
Demold Time	45.0 – 50.0 minutes
Heat Deflection	140ºF
Shrinkage	.005
Hardness	78-80 D
Full Cure Time	5-7 Days or 16 hours @ 150 ºF
Tensile Strength	4200 psi
Elongation Strength	10-15%
Shelf Life	6 months from open
Color	Clear/Colorless

BEFORE USE: Thoroughly read Safety Data Sheets, product labels

and the "SAFETY" section in this Technical Data Sheet.

BEFORE YOU BEGIN

Work Environment: The ideal working temperature is around 65-75°F in a clean, dry, dust-free environment. Avoid working in high humidity. If you are pouring in large volumes of 2 or more gallons, we suggest keeping room temperature closer to 65°F. We highly recommend keeping fans on your project to help dissipate heat.

Recommend: Vacuum and/or Pressure to crush any existing bubbles or air entrapment. For best vacuum processing, degas sides "A" & "B" separately before mixing together.

Mold Preparation: Brand new silicone molds can interfere with the Alumilite Clear cure so make sure silicone rubber molds are fully cured and clean … avoiding any excess oil, tin, or residue from the molds prior to casting Clear.

Storage: Alumilite Clear performs the best when you used shortly after purchase. Alumilite Clear B side is extremely moisture sensitive so store in a dry place, at or above 70 degrees F. Unopened containers will have a shelf life of 6 months when properly stored at or above 70 degrees F. Purge opened containers with dry nitrogen or Alumilite's Bloxygen before re-sealing. If the B side gels or looks thick, simply warm to 110-120F and allow to return to normal viscosity.

NOTES: When used at room temperature, castings 1/8" thick or larger can be readily cast but extremely large masses over 4 inches thick can produces excessive exotherms that can cause cracks in the part. Castings that are less than 1/8" thick generally require mild post-cure. Always warm your molds to approx. 125 degrees F before pouring. New addition cure silicone rubber molds should be baked at 250 degrees for 6 to 8 hours before pouring "Alumilite Clear" into the mold. To achieve perfectly bubble free castings, vacuum or pressure assistance is required. The "B" side of "Alumilite Clear" is temperature sensitive and should be stored above 70 degrees F.

IMPORTANT NOTE: If the "B" side thickens to a gel like state, warm the material to bring back to its original consistency. Warm the material by filling a bucket with hot tap water and place the entire sealed container into the bucket of water. DO NOT open the caps and do not pour the resin into the water. Simply warm the container using hot tap water on the side of the bottle or soak in a container until the viscosity returns to normal. Shake occasionally until the "B" side returns to its original thin viscosity. Rotate hot water as needed and continue to warm until the material thins back down to its original viscosity. DO NOT microwave the material. DO NOT place the plastic container into an oven in an attempt to restore. A hot plate can be used but should be set at a very low setting between 120-140 degrees F. The material should also be shaken frequently to mix restore the warming "B" side and prevent the bottom from getting too hot. Once the material has been restored, it will stay in its liquid state until being exposed to below 65 degree temperatures for more than a few days at which time it

will once again begin to thicken. Short periods of cold temperature exposure will not affect the "B" side viscosity however prolonged periods of time will cause the "B" side to thicken and eventually gel.

Heat Curing: (Less than 1/8" must be post cured.)
Generally, for most application, ambient temperature curing is adequate; however, maximum physical properties and heat resistance is obtained by post curing for 16 hours at 150 degrees F, or for 6 to 8 hours at 180 degrees F. Parts may require some support during heat curing. A suggested cure schedule is: 3 to 5 days at room temperature (to minimize any softening during heating), followed by 4 to 6 hours at 130 to 150 degrees F. This cure schedule minimizes part distortion and shrinkage, while affording maximum toughness and heat sag resistance. Supporting the part during the post cure may be necessary.

Note: Prolonged direct exposure to sunlight can affect the surface of this product. Cover molds or other products when storing outdoors. The curing may be inhibited if cast against a tin catalyzed silicone RTV.

Precautions:
Avoid contact of Part "A" (resin) or the A/B mix with the skin. Should contact occur, wash thoroughly with soap and water, twice. Use in well ventilated work areas. If extensive casting is to be performed, provide cartridge/filter respirator face masks to shop personnel. Avoid confined areas where casting has just been cast, as harmful vapors may build up.

Please refer to SDS (safety data sheet) sections 5 and 6, before using product.

WARNING: THE CURE REACTION IS EXOTHERMIC. Do not apply in thicknesses greater than the recommended maximum application thickness for the product.

DISCLAIMER: The information contained herein is considered accurate; however, Alumilite makes no warranty regarding its accuracy. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.