

**ANCHOR SEAL**  
**Product # U3082DV**

12/6/11

**Urethane- Shore 82D**

**Features:**

Water clear, UV stable  
Aliphatic chemistry  
High impact resistance  
De-mold in 18-24 hours  
Insensitive to Moisture  
Low shrinkage

**Applications:**

Casting prototype parts  
Architectural models  
Computer housings  
Movie props  
Medical models  
ROHS compliant

**Mixing & Curing Instructions:**

**Mix Ratio:** 100 Parts A to 82 Parts B by wt.

**Cure Schedule:** De-mold time, 18-24 hours @ 77°F.  
Full cure, 7 days @ 77°F or Post cure  
16 hours @ 160-180°F. Parts may require support.

Note: De-mold time will depend on mold temperature and casting thickness.

**Properties @ 77°F, Uncured:**

Pot Life, 100 gram mass, minutes..... 30  
Viscosity, A:B Mixed, CPS..... 650  
Specific Gravity..... Part A 1.06 Part B 1.03  
Shelf Life, factory sealed cans, ..... six months

**Physical Properties @77°F, Cured:**

Durometer (Hardness) Shore D..... 82  
Specific Gravity, grams/CC..... 1.05  
Density, cu in./lb..... 26.4  
Color..... water clear  
Tensile Strength, (ASTM D-638) PSI..... 6,650  
Izod Impact, (ASTM D-256) ft.lb./in. .... 1.0  
Elongation, at yield, (at break 65) %..... 5  
Flexural Strength, PSI (Modulus  $3.2 \times 10^5$ )..... 11,000  
Compressive Strength, (ASTM D-695) PSI..... 8,350  
Shrinkage, (ASTM D-2566) maximum, in/in ..... 0.005  
Heat Deflection Temp. cured 6 hrs. @ 160-170°F, @ 66 psi, °F..... 160

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## IMPORTANT INFORMATION: READ BEFORE USING PRODUCT

**Directions for Use:** Because of differences in density, *pigments and fillers, when present, may separate* from the liquid components during storage. To insure product homogeneity and maximum performance, check the containers for settling. If settling is evident, loosen any settled pigments from the bottom of the container and ***thoroughly mix contents prior to use.*** Use a metal mixing stick or power mix at slow speed with a drill press and dispersion blade. *This product might crystallize* in its shipping container during storage. If it appears hard, or has a granular consistency, or if it is normally clear but appears cloudy, warm it thoroughly at 120°F to reconstitute. Allow it to cool back to room temperature, then remix the contents before using.

**Measuring:** Carefully weigh Part A and Part B components with an accurate scale. If measuring volumetrically, use precise metering pumps, graduated/pre-marked containers or pre-measured kits. Place the correct proportions of Part A and Part B into a straight-sided container. **Note:** Altering the mix ratio from what is specified on the data sheet is not recommended. Cured properties could be adversely affected.

**Mixing:** Mix thoroughly with a flat-ended metal stick or a slow speed drill press with a dispersion blade. Scrape the sides and bottom occasionally to assure a thorough blend. Do not whip excessive air into the mixture. To guard against partially cured sections, never apply material *scraped* from the sides of the original mixing container. For best results, transfer the mixture into a second container and stir it again before application. This will help insure consistent properties and maximum performance.

**De-airing:** Low viscosity resins will de-air naturally on their own. Some applications require a totally air-free product. If a vacuum pump and chamber are used, evacuate the material for 5-15 minutes @ 28-29 inches of mercury. Allow sufficient space above the liquid for expansion, about four times the liquid volume. Resins slightly warmed are thinner and will de-air faster. Also, the use of an anti-foam or air-out additive will lower the surface tension and hasten air release. **Caution:** Warming a catalyzed mixture will shorten the pot life and decrease gel time.

**Storage:** Liquid urethane is subject to moisture absorption. After opening, blanket the contents with dry nitrogen before re-sealing the container.

## **Handling Cautions: Review the Material Safety Data Sheet before using this product.**

**Warning: For Industrial Use Only.** All chemicals must be handled with care. Avoid breathing fumes, mists and dust, they could cause respiratory discomfort or damage. Work in a well-ventilated area. Avoid all contact with the skin. If contact occurs, wash affected area thoroughly with soap and water. Repeated skin contact may cause dermatitis in susceptible individuals. Wear protective clothing and gloves. Severe irritation will result if this product is splashed into the eyes. Always wear eye protection. If eye contact occurs, flood eyes with clear water for 15 minutes and immediately seek medical attention. Always maintain good industrial hygiene when using this product.

**Notice To Buyer:** All information contained herein is believed to be accurate. However, it is the responsibility of the end user to determine the suitability of this product in his particular application. As the use of this product by others is beyond our control no warranty whether expressed or implied is made by Anchor-Seal, Inc. or any of its representatives as to this product's merchantability or fitness for a particular purpose. Under no circumstances shall Anchor-Seal, Inc. be liable for incidental, consequential or other damages for any reason. The sole liability of Anchor-Seal, Inc. shall be to refund the purchase price or replace materials deemed to be defective by us.