

# Product Bulletin

# CASS POLYMERS

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UC-4521-2  
URETHANE ELASTOMER - CASTABLE  
WATER CLEAR  
SHORE D 82

0302

## DESCRIPTION

UC-4521-2 system is a two-part, water clear urethane elastomer. It produces a transparent, optically clear casting that is abrasion and chemical resistant. UC-4521-2 can be used in applications that previously called for polycarbonate or acrylic. **This system is solvent free and contains no MOCA or TDI.**

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

Mix Ratio (parts by weight) .....	100R/85H
(parts by volume) .....	100R/88H
Specific Gravity .....	1.04 gms/cc
.....	26.7 cu in/lb
Work Life (300 gm mass) .....	12-14 minutes
Demold Time .....	6-8 hours
Full Cure .....	5-7 days
Mixed Viscosity .....	600-700 cps
Alternate Cure .....	16 hours at 150°F-180°F
or .....	6-8 hours at 180°C-210°C

If required, UC-4521-2 can be demolded in four hours if the mold has been preheated to 150°F.

## PHYSICAL PROPERTIES

Tensile Strength (ASTM D 638-82).....	4,700 psi
Elongation (ASTM D 638-82) .....	7-10%
Shrinkage (ASTM D 2566-79).....	0.0003 in/in
Heat Deflection Temperature (@ 66 psi load).....	165°F
Hardness .....	82 Shore D

## MIXING PROCEDURE

Blend resin and hardener together thoroughly using straight sided, moisture free containers such as plastic or metal. Paper products often contain moisture which can affect achieving a water clear casting. Also, wax lined containers can cause contamination. Vacuum degassing is required for air free castings prior to pouring.

NOTE: Total or even partial cure of UC-4521-2 may be inhibited when in contact with certain silicone mold compounds. Cast urethane elastomeric molds are the best alternative to silicone.

## HANDLING & STORAGE

UC-4521-2 has a six-month shelf life in unopened containers that are maintained at ambient temperature. 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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