



## Product Information

### ICOAT ICRU-6

### Chemical Resistant Urethane

#### Description

ICOAT ICRU-6 is a two component, high solids, solvent based, aliphatic polyester polyurethane. The UV resistant, mar resistant, chemical resistant nature of this product will cause it to outperform most other types of sealers or topcoats when compared. It is available in a 4 hour cure formula (ICRU-4). Do not use 4 hour cure in warm conditions. Available also in Antimicrobial version when a topcoat with Antimicrobial/Antifungal/Antimildew qualities are needed. (ICRU-6AM)

#### Uses

ICOAT ICRU-6 is designed for professional use only and is specified as the finish coat for use in moderate to severe chemical environments or in heavy traffic areas. Apply ICRU-6 as a coating over ICOAT water based and 100% solids epoxy primers as well as over all of our epoxy floor coatings. ICRU-6 is also used as a sealer on a variety of other substrates such as plain concrete, Texture Crete and Acid Stained Concrete Flooring. Use ICRU-6 on Industrial Floors, Garage Floors, Decorative Floors, Restaurant Floors, Food Processing Facilities, Automotive Service Areas.

#### Advantages

- VOC Compliant
- Chemical Resistant
- Color and Gloss Retention
- Impact & Abrasion Resistant
- Aliphatic Polyester Polyurethane
- Versatile - Spray, Roll or Brush
- 6 hour Dry Time
- 20 Min. Pot Life

#### Coverage

##### Single Coat:

250 - 300 sq/ft per gal as a coating – 2 mils dry – *Rough Surface*  
300 - 400 sq/ft per gal as a coating – *Smooth Surface*  
500 – 600 sq/ft per gal as sealer (thin upto 35% w/ acetone/xylene)  
Check with your local architectural coating V.O.C. laws prior to thinning any products.

*2 coats are recommended for best results*

#### Packaging

1 gallon kits premeasured in 2 - 1/2 gallon cans  
(1/2 gallon part A and 1/2 gallon part B)

#### Colors

Clear, Cream, Wheat, Saddlewood, Metal Grey, Charcoal, Shell Grey, Cashew, Red Leather, White & Black.

#### Inspection

Concrete must be clean, dry, and free of grease, paint, oil, dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be at least 2500 psi and feel like 60-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80% (per ASTM F-2170). All moisture should be kept away a min. of 72 hours before application and a min. of 72 hours after installation. This includes sprinklers, rain, fog, dew, etc.

Before starting flooring work, test existing concrete slab to make sure there is no efflorescence or high levels of alkalinity.

Alkalinity refers to a high pH reading which means the floor is not neutral. A high alkaline environment can cause salts to creep up through the cement called efflorescence. These salts have a tendency to prevent or destroy the bonding of coatings to the concrete. The most common form of testing is the use of a wide-range pH paper or tape. Make sure the floors pH reading ranges between 5-9 to ensure adhesion. The testing of concrete for alkalinity can show the amount of alkalinity only at the time the test is ran, and cannot be used to predict long-term conditions.

Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for a floor coating's installation. The calcium chloride tests should be conducted in accordance with the latest edition of ASTM F 1869, *Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride*. When running a calcium chloride test, it is important to remove any grease, oil, curing agents, etc. so accurate readings can be obtained. A rate of 3.5lbs/1000 ft<sup>2</sup>/24hr period or less is an acceptable amount of vapor pressure for an epoxy flooring installation. If the reading is any higher, please consult your ICOAT distributor for further instructions.

Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or all together failure of the coating system. Testing is the responsibility of the applicator. ICOAT bears no responsibility for failures due to any of the above conditions.

#### Surface Preparation

Over Concrete: Shotblasting is the preferred method for preparing concrete when applying epoxy and urethane coatings. When using other methods, prepare the surface so that the product will soak in and properly bond.

Over Epoxy: Apply directly over new epoxy within 24 hours of epoxy application. When applying over existing epoxy or CRU that has been cured for more than 24 hours, sand the surface with 100 grit sand paper, remove debris and wipe with acetone just before new application. In most cases you will need to thin CRU prior to application after the 24 hour window.

#### Priming

For indoor use, substrate can be primed by using ICOAT iPoxy-Solid6, iPoxy-Solid12 or iPoxy-Prime4 floor coatings. Primer coat should be troweled smooth and backrolled at 200-250 sq ft per gallon to help avoid pinholes. Apply 1 or 2 coats of primer to achieve the proper build. Read individual product information sheets.

#### Mixing

Before application, ICOAT ICRU-6 A-Side and B-Side should be pre-mixed in their individual containers. Add 1 part of the A-Side to 1 part of the B-Side while mixing, using a mechanical mixer (Jiffy Mixer) at low to medium speeds. For certain applications, ICRU-6 can be cut with up to 20% solvent. Check with ICOAT for compatible solvents. Mix until a homogeneous mixture and streak-free appearance is attained (at least 3 minutes) and frequently stir to keep uniform color during application. Use care to scrape the sides of the container to ensure that no unmixed material remains.

#### Application

Coating over epoxy: The ICRU-6 material may be sprayed, rolled or brushed. Apply ICOAT ICRU-6 within 24 hours after the epoxy is applied. Immediately after mixing, spread a strip of the batch



onto the surface along the edges where it will be cut in using a brush. Pour the remaining material near the cut in area and spread evenly using a 3/8" non-shed, solvent resistant roller cover. Apply quickly and do not over roll, as product will begin to "tack-up" as the air begins to cure it.

Coating over ICRU: Re-coat if needed within 24 hours of application to insure adhesion. If a delay occurs, it is recommended that the surface be lightly sanded and wiped with acetone just before reapplication.

**Maintenance:**

Cleaning the ICRU-6 is best done by mopping surface with mild soap and water or a mild detergent. For interior surfaces, ICOAT recommends applying several coats of wax over the sealer initially and quarterly depending on traffic. For best appearance, ICOAT recommends resealing the surface every 4-5 years. Reseal by lightly sanding existing coating, cleaning surface, and applying ICRU-6 over dry surface using above application specifications

**Limitations:**

- Do not apply in temperatures below 50°F or above 90°F.
- Do not apply unless temperature is 5° above the dew point or if rain is expected within 24 hours.
- Do not apply on damp or moist surface as it will whiten and may cause delamination.
- Opened material must be used within 2 days.
- 1 gallon must cover at least 275 sf on rough surface or 300 sf on smooth to properly cure.
- Strong solvent smell, use in well ventilated areas.
- Caution ICRU-6 is Flammable and Hazardous, please read MSDS sheet before use.
- Do not apply over 10 Series or other water-based acrylics.

**Clean Up:**

Equipment should be cleaned with environmentally safe solvent immediately after use.

**Technical Data**

	Test Method	Results
Shelf Life		6 months
Mixing Ratio by Volume A:B		1:1
Dry Film Thickness per Coat:	ASTM D-3363	3-5 mils
Tear Resistance DleC	ASTM D-1004-66	270 pli
Tensile Strength	ASTM D-412	3980 psi
Ultimate Elongation	ASTM D-412	60%
Gloss (60 deg)	ASTM D-823	90%
Volume Solids	ASTM D-2697	62% by volume
VOC	ASTM D 2369-81	100 g/l
Pot Life (75±3oF)		60 minutes
Recoat Time		7 hrs (min) -24 hrs (max)
Taber Abrasion	ASTM D-4060-84	42.7 mg Loss, C17 Wheel, 1000g Load, 1000 Cycles
Impact Resistance	ASTM D-2794-84	Inch-pounds Direct 160 Reverse 160
Pencil Hardness	ASTM D-3363-84	3-H
Viscosity at 75 F(24 C) 50% RH		A-SIDE 210 cps B-SIDE 1170 cps
Weight		A-SIDE 9.4 lbs/gal B-SIDE 9.3 lbs/gal
Flash Point		A-SIDE <100 F B-SIDE <100 F
MEK Resistance		No effect after 100 rubs
Chemical and Solvent Resistance (4 Hour Spot Test, Covered)		
Skydrol B-4		No Effect
Hydraulic Fluid #83282		No Effect
25% Nitric Acid		Blistered
37% Hydrochloric Acid		Lifted Film
50% Sulfuric Acid		Stain
50% Sodium Hydroxide		No Effect
10% Acetic Acid		No Effect
MEK		Slight Swelling
Xylene		No Effect
40 Day Test Covered		
Skydrol B-4		No Effect
Hydraulic Fluid #83282		No Effect