



# COATING SYSTEMS FORMULATED TO LAST

## LIBERTY HP-CRU

### Product Description

LIBERTY HP-CRU is a two component, chemical resistant aliphatic urethane protective coating designed for high-traffic environments where resistance to chemicals and abrasion is critical. This non-yellowing coating is offered in clear or pigmented options, with gloss or satin finishes, and can be supplied with or without high-wear, aluminum oxide grit for enhanced durability.

#### ADVANTAGES:

- Highly Abrasion resistant
- UV Stable
- Excellent Chemical resistance
- Low Odor
- Incredible Durability
- Gloss or Satin
- Handles High Traffic
- Skydrol Resistant

### Applications

- Pharmaceutical
- Food Prep/Kitchens
- Airplane Hangars
- Secondary Containment
- Manufacturing plants
- Clean rooms
- Auto showrooms
- Schools
- Car wash facilities
- Laboratories
- Basements
- Kennels
- Veterinary facilities
- Locker rooms
- Ramps
- Health Care facilities
- Loading docks

### Colors

LIBERTY HP-CRU is available as a clear base. A variety of pigment packs can be added at an additional charge. Please contact LIBERTY - ICS Sales Representative for available colors.

### Packaging

LIBERTY HP-CRU is available in 1 kit sizes:

|                  | Part A  | Part B |
|------------------|---------|--------|
| 1.125 Gallon Kit | 128 oz. | 16 oz. |

### Substrate/Coating Preparation

Before coating is applied, substrate must be:

- Applied on LIBERTY Urethane Cement, or Polyaspartic Only
- Dry – No wet areas
- Clean – Contaminants removed
- Profiled – Surface Sanded & Acetone Wiped

### Typical Uses:

LIBERTY HP-CRU is designed as a final topcoat over Urethane Cement or polyaspartic systems.

### Physical Properties

| PROPERTY                                  | VALUE             |
|-------------------------------------------|-------------------|
| Appearance                                | Clear Liquid      |
| Total Solids (% by Weight)                | 92.4              |
| UV Resistance                             | Excellent         |
| Viscosity (Brookfield LVF), cps @ 25° C   | 500               |
| Static Coefficient of Friction            | >0.6              |
| Full Chemical Resistance                  | 7 days            |
| Flash Point (C Pensky-Martens closed cup) | 110° F            |
| Adhesion                                  | Substrate Failure |
| Thermal Stability (28 days @ 52° C)       | No Effect         |
| Mechanical Stability                      | Great             |
| VOC (g/l) - Clear                         | <50 g/L           |
| Hardness                                  | >4H               |
| Tensile Strength, psi                     | 7000 psi          |
| 60° Gloss                                 | Gloss 75+/-10     |

### Film Properties

#### PHYSICAL PERFORMANCE PROPERTIES OF DRY FILM

All tests were conducted on 2.0 to 2.5 mil films, and air-dried for seven days at room temperature.

| PROPERTY                                                               | VALUE                            |
|------------------------------------------------------------------------|----------------------------------|
| Hardness (Pencil / Sword)                                              | 2H / 70                          |
| Taber Abrasion (mg loss per 1000 cycles, CS-17 wheel, 1000 load)       | w/ Grit - 4 mg<br>no Grit - 9 mg |
| Impact Resistance (Direct / Reverse)                                   | 140 / 140 (lbs)                  |
| Crosshatch Adhesion (Untreated Cold Rolled Steel / Untreated Aluminum) | 100% / 100%                      |

### Patching

Voids, cracks and imperfections will be seen in finished coating if the concrete is not patched correctly. Patch concrete with LIBERTY 1111 FAST PATCH. After the patching material is cured, diamond grind patch. If a non-LIBERTY patching material is used, contact a LIBERTY technical representative for a compatible and approved alternative.

### Testing

All surfaces are not the same. It is recommended that a sample area be done before the start of the project. The test should be done on-site, using the proposed method by the assigned applicator to ensure proper adhesion and color. A sample area should also be done on any existing coatings to determine if any contaminants exist or if delaminating will occur.

## CHEMICAL RESISTANCE: 7-DAY CHEMICAL SPOT TEST

| PROPERTY                  | VALUE                          |
|---------------------------|--------------------------------|
| Brake Fluid               | No Effect                      |
| Transmission Fluid        | No Effect                      |
| Coolant                   | No Effect                      |
| Power Steering Fluid      | No Effect                      |
| Battery Acid              | No Effect                      |
| MEK                       | <400 Double Rubs               |
| Acetone                   | <500 Double Rubs               |
| Skydrol Ambient & @ 150 F | No Effect & Very Minor Dulling |

## Product Data

|                          |                    |
|--------------------------|--------------------|
| Volumetric Ratio:        | 8 to 1             |
| Coverage:                | 400-700 SF/Kit     |
| Application temperature: | 50-90°F            |
| Return to Service        | 24 hours           |
| Pot life:                | 45 minutes         |
| Working time on floor:   | 10-15 minutes      |
| Cure time:               | 8-10 hours         |
| Critical recoat time:    | <24 hours          |
| Shelf life:              | 12 months          |
| USDA Food & Beverage:    | Meets requirements |

## Application Instructions

1. Always apply in descending temperatures. Concrete is porous and traps air. In ascending temperatures (generally mornings) the air expands and can cause out gassing in the coating. It is safer to apply coatings in the late afternoon, especially for exterior applications.
2. Optimum ambient temperature should be between 65-90°F during application.
3. Mix LIBERTY HP CRU using mixing instructions found on this TDS.
4. Apply approximately 500-700 SF per kit by dipping into paint tray with properly mixed LIBERTY HP-CRU.
5. Using a 18 inch 3/8" non-shedding phenolic (plastic) core paint roller, roll coating forwards and backwards.
6. Lastly, back roll in the opposite direction.

## Clean-up

LIBERTY HP-CRU, while in an un-reacted state, may be cleaned up with acetone and white terry towels. Xylene may be needed once the resin begins hardening. Lastly, a strong solvent like methylene chloride may be required if resin is nearly set up. Use this solvents with extreme care.

## Mixing

The ratio of LIBERTY HP-CRU is 8 to 1. That is, 8 part A (resin) to 1 part B (hardener). Generally, 1 mixed full kit of LIBERTY HP-CRU is ideal for application. Mix the following with a drill and mixing paddle. Note: If using a drill mixer, use a low speed to prevent air entrapment.

1. Pour Part A into 2 or 3 gal mixing container.
2. Add the pre-measured part B container into the Part A container and mix for 3-4 minutes.

## Product Limitations

LIBERTY HP-CRU must not be applied at a wet film thickness exceeding 3 mils. When applying, do not use 9-inch rollers, and ensure both the substrate and material temperatures remain between 60°F and 80°F. Do not proceed with application if moisture is present on the floor surface. The floor temperature must be at least 5°F above the dew point prior to coating. Application is not recommended when relative humidity exceeds 80%.

LIBERTY HP-CRU should not be installed over systems cured using Fast Hardener. Drying times will be extended when relative humidity falls below 30%.

For vertical surfaces, two coats are required, with the second coat applied within 24 hours of the first. Do not apply LIBERTY HP-CRU clear with LIBERTY HP-CRU grit over smooth substrates, as roller marks may be visible.

## IMPORTANT NOTES

Do not allow material to drip or puddle on the surface, as excess build may cause blistering. Apply LIBERTY HP CRU at a maximum of 3 mils wet film thickness and do not use 9-inch rollers. Maintain material and substrate temperatures between 60°F and 80°F, and do not apply if moisture is present. Substrate temperature must be at least 5°F above the dew point. Do not apply when relative humidity exceeds 80%.

This product is best suited for application in temperatures between 60°F and 80°F. Full chemical and abrasion resistance occurs in 7 days at 77°F. At lower temperatures these properties will be attained more slowly. Protect floor from chemical exposure and abrasive wear during this time.

## Warranty

LIBERTY ICS products are warranted for one year after date of application. Please refer to the LIBERTY Limited Material warranty for additional clarification.

## Safety

Consult LIBERTY HP-CRU Safety Data Sheet. Avoid HP-CRU contact with skin. Some individuals may be allergic to polyols and isocyanates. Protective gloves, clothing, and full face masks with organic vapors filters are required.