



CHEMCRAFT™ has all the necessary properties required for casting applications on different substrates. Users are encouraged to carry out all the necessary adhesion tests before commencing with the project.

### COLORS

CHEM-CRAFT™ is available in clear only.

#### Available Colors:

- Epoxy Pigment > Liquid Pods
- Mica Pigments (Metallic)
- Concentrated Translucent Colored Pigments



\*To view all available colors, see CHEMTEC's color chart

## CASTING RESINS



### PRODUCT DESCRIPTION

CHEMCRAFT™ is a two-component, 0 VOC, 100%-solids high performance, commercial grade epoxy casting resin. It has low exothermic heat buildup and cures to a crystal-clear solid finish, displays an excellent resistance to UV irradiation, resists stress cracking.

CHEMCRAFT™ possesses superior mechanical and chemical properties as well as a long pot life and working time. Ideal for metallic systems, casting projects, and see-through encapsulation, accentuating and magnifying the objects within. It can be poured up to 2" thickness in 1 pour and cures to a crystal-clear appearance. Designed for DIY's, and commercial applications.

Formulated for casting projects and see-through encapsulation, accentuating, and magnifying the objects within. It can be poured up to 3" thickness in 1 pour and cures to a crystal-clear appearance. Designed for DIY's, and commercial applications.

CHEMCRAFT™ formulation is based on a high-performance cycloaliphatic polyamine technology displaying outstanding clarity and performance. Its design features provide for the highest industrial and commercial demands.

### ADVANTAGES

- ✓ Made from 100% solids
- ✓ Self leveling
- ✓ High Gloss
- ✓ Blush Resistant
- ✓ Easily Tinted
- ✓ High Impact and abrasion resistant
- ✓ Unparallel Clarity
- ✓ 0 VOC
- ✓ High Resistance
- ✓ Water Resistant
- ✓ Enhanced air release
- ✓ Crystal-Clear
- ✓ Safe for food contact
- ✓ UV Resistant

### USES

- ✓ Art projects
- ✓ Encapsulated Casting
- ✓ Metallic finishes
- ✓ River Tables

### PACKAGING

CHEMCRAFT™ kits consist of 2 Part A Resin and 1 Part B Hardener.

	Part A	Part B
1 Gallon Kit	Pre-Measured	Pre-Measured
3 Gallon Kit	2 Gallons	1 Gallon
15 Gallon Kit	10 Gallons	5 Gallon
Drum Kit	110 Gallons	55 gallons

### TESTING

All surfaces are not the same. It is recommended that a sample area be done before the start of the project. A sample area should also be done on any existing coatings and/or substrate to determine if any contaminants exist or if delaminating will occur.

### PHYSICAL PROPERTIES

PROPERTY	VALUE	REFERENCE
Compressive Strength	7,800 psi – 53.7mPa	ASTM C 579
Flexural Strength	3,700 psi – 25.5mPa	ASTM D 790
Tensile Strength	3,900 psi – 26.9mPa	ASTM D 638
Taber Abrasion	75-80 Mgs	ASTM D 4060
Flammability	Self-extinguishing	
Hardness, Shore D	80+	ASTM D 2240
Flash Point	>200°F - >93°C	
Viscosity / Clear	700-800	cps

### APPLICATION DATA

Volumetric Ratio:	<b>2:1</b>
Solids:	<b>100%</b>
Application temperature:	Minimum 16°C (60°F) & 55% rel. hum.
Pot life:	20 min @ 20°C/68°F & 55% rel. hum.
Working time:	45 min @ 20°C/68°F & 55% rel. hum.
*Gel time:	18 hours @ 20°C/68°F & 55% rel. hum.
Tack Free @ 2 inches:	36 hours @ 20°C/68°F & 55% rel. hum.
Dry:	48 hours @ 20°C/68°F & 55% rel. hum.
Demolding:	60 hours @ 20°C/68°F & 55% rel. hum.
Full Cure:	7 days @ 20°C/68°F & 55% rel. hum.

*\*Time will vary on temperature, humidity, size of project, and application methods. Proper testing is recommended.*

Shelf life:	12 months in original unopened factory container under normal storage conditions.
USDA / FDA / CFIA:	Meets requirements

### THEORETICAL COVERAGE

One gallon will cover approximately 144in<sup>3</sup> / 0.08ft<sup>3</sup> at 1" thickness.

### SURFACE PREPARATION (CONCRETE & WOOD)

Before coating is applied, all surfaces must be:

- Dry – No wet areas (<4%)
- Clean – Free of any contaminants, grease, oil, paint, curing agents, dust, loose coating, and laitance removed or any other contaminants that may prevent proper adhesion.
- Profiled – Surface etched and/or Sanded

Mechanical preparation is the preferred method of preparing surfaces prior to coating application. Diamond grinding, Sanding, or any other acceptable preparation approved by CHEMTEC™ COATINGS INC.



### MIXING

The ratio of CHEMCRAFT™ is 2 to 1 (by volume). That is, (2) two Parts A (resin) to (1) one Part B (hardener). Mix the resin with drill and a Heli Mixer. Note: If using a drill mixer, use a low speed (not to exceed 300 rpm) to prevent air entrapment.

1. Mix the 2 Parts A and 1 Part B by volume for 3 minutes in a clean container.
2. CHEMCRAFT™ is designed to be immediately poured. Leaving mixed product in the container will greatly reduce working time. Once poured out, 75 minutes of working time can generally be expected at 20°C (68°F) and 55% relative humidity.
3. If the ratio is not respected, the product will not cure.
4. Mix thoroughly for 3 minutes. Avoid mixing too fast to avoid the air entrapment in the product. Larger quantities will require longer mixing time. Ensure to mix until the appearance of the product becomes even in the container. No cloudy appearance should remain. Lesser quantities are recommended for beginners.
5. Mix only the necessary quantity to be used.
6. If drops of unmixed material falls on the surface of your work, it will affect the curing and the look of the finished product since those drops will not properly react with their counterparts. (Refer to the newsletter "Installation guide" or contact your CHEMTEC™ representative for additional information).

### APPLICATION INSTRUCTIONS

- Apply only when air and substrate temperature is between 20-22°C (68-72°F).
- Ensure a dust-free environment to avoid any dust and/or airborne particles to fall into the resin.
- The wood surface needs to be sealed by brushing or rolling the CHEMNATURAL™ or CHEM100™ in a thin layer. Once the seal coat is tacky, you can start the pouring process. Sealing the substrate is critical since the surface pores may create air bubbles. Once sealed, the CHEMCRAFT™ can be safely poured.
- A pressure pot or vacuum chamber can be used with CHEMCRAFT™
- For larger project, to reduce the risk of exothermic reaction, decrease temperature by using a dedicated fan system.

### DISPOSAL

- ▲ Excess material (A and B) should be mixed and allowed to cure. Cured product may be disposed without restriction.
- ▲ Uncured materials should be stored in a suitable and sealed container and may be disposed in accordance with provincial, State, municipal, and /or Federal regulations.

### LIMITATIONS

- ▲ Product should be used immediately after mixing.
- ▲ Do not use product that has begun to cure.
- ▲ Do not mix product longer than three minutes.
- ▲ Over mixing will initiate the curing process prematurely.
- ▲ Do not use in low-temps.
- ▲ Do not apply over 2" (50mm) thick.
- ▲ Do not use material that has crystallized.
- ▲ Do not use over oil-based products.
- ▲ Do not use in high humidity conditions.
- ▲ The curing time of this product will depend on thickness and overall volume poured. Curing times can differ significantly depending on the quantity poured at once, the shape, and the volume poured.
- ▲ If the overall volume poured at once is too large, an exothermic reaction will occur. An exothermic reaction can create unwanted events such as an uneven surface, an amber color or even heavy smoke. It is also recommended to apply the product when room temperature is stable (close to 20°C / 68°F). If room temperature is too high, the product will create an exothermic reaction. Ensure a reliable fan system to keep temperature stable.
- ▲ If applied at low temperature, the product might not cure properly. We strongly recommend performing tests prior using the product.
- ▲ Heating the product to prevent bubbling could also create an exothermic reaction.
- ▲ Requires a dry substrate. This product should not be applied to substrates that show high levels of moisture/humidity. Moisture content of the substrate must be <4% prior to application.
- ▲ Not suited for exterior applications.
- ▲ CHEMTEC™ COATINGS INC. stands behind the quality of its products. However, CHEMTEC™ cannot guarantee results since CHEMTEC™ has no control over surface preparation, operating conditions, and application procedures. Clients are solely responsible to test the products to determine if they perform as expected and/or as per their intended projects. Contact CHEMTEC™ COATINGS for additional information regarding the limitations of this product.

### TECHNICAL & SAFETY LITERATURE

To acquire additional information, refer to the technical and safety literature, or visit: [www.epoxychemtec.com](http://www.epoxychemtec.com)

### WARRANTY

CHEMTEC™ COATINGS warrants this product to be free from manufacturing defects. The products are warranted for one year after date of application. Please refer to the CHEMTEC COATINGS Limited Material warranty for additional information.

CHEMTEC™ COATINGS will replace at no charge the quantity of the Coating that CHEMTEC™ COATINGS determines has failed to perform, as the sole and exclusive remedy for any breach of this warranty and/or any other defect or failure of the coating. Proof of purchase is required. Cost of labor for application of any product specifically is excluded.

**LEGAL DISCLAIMER:** All information provided by CHEMTEC™ COATINGS INC. concerning CHEMTEC™ COATINGS products, including but not limited to, any recommendations and advice relating to the application and use of CHEMTEC™ COATINGS products, is given in good faith based on CHEMTEC™ COATINGS's current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with CHEMTEC™ COATINGS's instructions.

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### SAFETY

Consult CHEMCRAFT™ Safety Data Sheet. Avoid contact with skin. Some individuals may be allergic to epoxy resin. Protective gloves, facial and ocular protection, proper ventilation, and clothing are recommended.

**- KEEP AWAY FROM CHILDREN -**  
**- FOR COMMERCIAL & INDUSTRIAL USE ONLY -**

# CHEMTEC