



# Technical Data Sheet

## BC Poxy Clear Resin 1000 LV

### Modified, Ultra-Clear, Low-Viscosity Epoxy Resin System

#### 1. Product Description

BC Poxy Clear Resin 1000 LV is a modified, ultra-clear, low-viscosity epoxy resin designed for high-clarity applications including castings, coatings, laminates, adhesives, and decorative encapsulations. It exhibits excellent transparency, polish ability, low color, and high mechanical strength when used with the recommended curing agents. The system offers adjustable curing profiles suitable for ambient or elevated-temperature applications.

#### 2. Features & Advantages

- Ultra-clear appearance with excellent optical clarity
- Low viscosity for easy wet-out and bubble-free casting
- High mechanical and electrical performance
- Compatible with multiple hardeners for variable pot life and cure speeds
- Excellent moisture resistance and dimensional stability
- Ideal for decorative, industrial, and composite applications

#### 3. Typical Uses

- Decorative and functional clear castings
- Transparent coatings and laminates
- Molded and encapsulated components
- Fiberglass systems requiring high transparency
- Electronics potting and rigid composite structures



## 4. Technical Data

Property	Value	Test Method
Mixed Viscosity @ 25°C	~500 cps	ASTM D2196
Appearance (Cured)	Ultra Clear	Visual
Specific Gravity @ 25°C	1.15	ASTM D1475
Hardness (Shore D)	82	ASTM D2240
Moisture Absorption (10 days)	0.26%	ASTM D570
Tensile Strength @ 25°C	10,800 psi	ASTM D638
Compressive Strength @ 25°C	19,200 psi	ASTM D695
Thermal Conductivity	$5.2 \times 10^{-4}$ Cal/sec · cm <sup>2</sup> · °C/cm	ASTM E1530
Thermal Stability (1000 hrs @ 175°C)	0.45% Weight Loss	Internal
Coefficient of Thermal Expansion	$50 \times 10^{-6}$ in/in/°C	ASTM E831
Volume Resistivity @ 25°C	$6 \times 10^{15}$ Ohm · cm	ASTM D257

## 5. Surface Preparation

- Ensure surfaces are clean, dry, and free from dust, oil, and contaminants.
- For best adhesion, abrade glossy or smooth surfaces before application.
- Metal surfaces: clean and degrease thoroughly.

## 6. Mixing

- Mix Part A (Resin) and Part B (Hardener) according to specified ratio (as per selected hardener).
- Stir slowly to avoid entrapping air.
- Use immediately after mixing due to limited pot life



## 7. Application

- Can be applied by pouring, brushing, coating, casting, or impregnating fiberglass.
- For deep castings, apply in layers to avoid overheating.
- Allow to cure at ambient temperature or under controlled heating for faster turnaround.
- Protect from dust during the initial curing phase.

## 8. Coverage

Coverage varies depending on application thickness:

- 1 mm coating: ~1.1 kg/m<sup>2</sup>
- Casting: Material usage depends on mold volume

## 9. Packing

- Part A (Resin): 8.4 kg
- Part B (Hardener): 3.6 kg
- Total Kit: 12 kg

## 10. Shelf Life & Storage

- Store between 10–30°C in closed, dry, indoor conditions.
- Protect from moisture and direct sunlight.
- Shelf life: 12 months in original sealed packaging.

## 11. Health & Safety

- Wear protective gloves, goggles, and respirator.
- Avoid skin and eye contact.
- Handle in well-ventilated areas.
- Refer to the SDS for detailed safety instructions.

### DISCLAIMER

The data presented in this sheet are based on laboratory testing and practical experience. Variations in substrate, application method, and environmental conditions may impact performance. Users are advised to carry out tests under their own conditions. Building Chemistry Industry's responsibility is limited to the product replacement in cases of proven manufacturing defect.

