

# PLUS FIVE CLEAR EPOXY

## Product Description

Pioneer Plus Five Clear Epoxy is a thermosetting type of adhesive that cures in 5 minutes. It dries clear, producing an invisible glue line. It develops strength even at temperatures as low as 0°F. It adheres to almost all surfaces. It is ideal for fast perfect bonding and repair of glass, concrete, steel, wood, marble, stone, enamel, some plastics and porcelain. It combines the high quality strength of epoxy adhesives with an extra fast setting characteristics of a contact adhesive. No jigs and no clamps support needed while setting.

## Key Features

- Dries Clear in 5 minutes
- Designed for fast and permanent bonding and repairs
- Solvent-free
- Forms durable bonds on a variety of materials
- No supports needed while setting

## Applications

- Bonds parts and accessories for DIY projects
- For general home repairs
- For mending of broken china and pottery
- For bonding porcelain or metal designs to wood, marble and concrete
- For repair of glass, concrete, steel, enamel and some plastics

## Product Specifications / Typical Properties / Physical Characteristics

**Table 1. Wet Properties\***

| Parameters          | Component A (RESIN) | Component B (HARDENER)     |
|---------------------|---------------------|----------------------------|
| 1. Appearance       | White, Hazy, flowy  | Clear, Light Yellow, flowy |
| 2. Specific Gravity | 1.16                | 1.13                       |
| 3. Viscosity @ 25°C | 16,000-30,000 cps   | 11,000-14,000 cps          |
| 4. Solids Content   | 100%                | 100%                       |



**Table 2. Mixed State Properties\***

| Parameters             | Results                        |
|------------------------|--------------------------------|
| 1. Mixing Ratio        | 1 part A: 1 part B (by volume) |
| 2. Appearance          | Clear                          |
| 3. Potlife @ 25°C      | 3-5 minutes                    |
| 4. Setting Time @ 25°C | 5 minutes                      |

**Table 3. Cured State Properties\***

| Parameters                                    | Results  |
|---|--|
| 1. Full cure time                             | 72 hours   |
| 2. Hardness (after 24 hours), shore D         | 80 minimum   |
| 3. Shrinkage                                  | nil  |
| 4. Water resistance                           | Excellent  |
| 5. Chemical Resistance                        | Resistant to oil, gasoline and most chemicals (not resistant to concentrated acids and solvents) |
| 6. Weathering Resistance                      | Color will fade through time (epoxy-based products are typically not UV-resistant)               |
| 7. Adhesive Strength by Pull-off test (Steel) | 1000 psi   |
| 8. Tensile Strength ASTM D638                 | 2500 psi   |
| 9. Flexural Strength ASTM D790                | 3200 psi   |
| 10. Compressive Strength ASTM D69             | 6700 psi   |

\*Typical Values and characteristics only.

## Application Procedure

### A. Surface Preparation

Surface contaminants such as dirt, grease, oil or wax must be removed from areas to be joined. Clean surfaces by sanding, sandblasting or brushing for stronger bonds. Surfaces should be clean and ready for application before the adhesive is mixed.

### B. Mixing

Mix equal parts by volume of components A and B. Better to use separate spatulas (or spoon) to avoid contamination. Blend thoroughly until color streaks disappear and a uniform color is obtained. To avoid waste, prepare a quantity just enough to be consumed within 3 minutes.

### C. Method

1. Apply mixed compound with a putty knife or spatula on one or both faces of glue joints.
2. Join surfaces with sufficient pressure to ensure complete contact.
3. Allow to cure or to harden.
4. Unnecessary handling should be avoided until cure is complete. On its uncured state, scrape off excesses from edges or joints or immediately spread out the mixture on surfaces to be settled, filled or patched.

### D. Cleaning

Clean all tools or equipment used while adhesive is still in its uncured state. Use Pioneer Epoxy Reducer or solvents to clean tools and spills.

## Packaging

| SKU          | Packaging | Weight of set,<br>kg | Quantity<br>per box |
|--------------|-----------|----------------------|---------------------|
| 6g tube set  | Tube      | 0.006                | 24 strips           |
| 15g tube set | Tube      | 0.015                | 24 sets             |
| Gallon set   | Tin Can   | 7.48                 | 2 sets              |
| Quart set    | Tin Can   | 1.87                 | 6 sets              |

## Storage

Store in a dry place at ambient temperature. Keep containers tightly closed, when not in use.

## Shelf Life

24 months from manufacturing date when kept in a sealed, unopened container following the required storage condition.

## Health and Safety Precautions



### WARNING

#### Hazards

Causes skin and eye irritation.  
May cause an allergic skin reaction.  
Toxic to aquatic life with long lasting effects.

#### Precaution

Wash skin thoroughly after handling.  
Wear protective gloves/clothing/eye/face protection.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.

**If on skin or hair:** Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs, get medical attention.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

**Collect spillage.**

### KEEP OUT OF REACH OF CHILDREN.

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**Pioneer Adhesives, Inc.**  
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ISO 9001:2015 and ISO 14001:2015 Certified

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