

# **Product Data Sheet**

# **ASMACO POXY 95 CW**

Two component 100% solids solvent free, Advanced cold weather epoxy adhesive, high strength, moisture tolerant,

#### **DESCRIPTION:**

ASMACO POXY 95 CW is a specialized epoxy resin-based structural adhesive designed for use in cold conditions. It consists of two components and exhibits moisture tolerance during application and curing. Once cured, it provides high modulus and strength properties, widely used for bonding hardened concrete, repairing concrete structures, and various structural adhesive applications,



## **KEY PERFORMANCE PROPERTIES**

- User-friendly non-sag paste ideal for vertical applications
- Simple and convenient mixing ratio of A:B=3:1 by volume.
- Superior adhesion to concrete, steel, timber, and various construction materials.
- Moisture tolerance before, during, and after curing process.
- Additional temperature-specific grades for versatile applications.
- ASMACO POXY 95 Slow Set version available to meet specific assembly and strength needs, for tropical & hot weather conditions.
- High-modulus, high-strength structural adhesion for robust bonding.
- Conforms to ASTM C 881, Type VI requirements and reliable performance.

#### AREAS OF APPLICATION

Designed for a wide range of concrete repairs with various levels of mechanical and chemical exposure,

- Structural bonding for precast and post-tensioned concrete bridge segments.
- Sealing joints between concrete sections in segment-bysegment erection processes.
- Ideal for segmental bridge construction in cold weather temperatures ranging from -6°C to 7°C (20°F to 45°F).

- Suitable for structural bonding of building components, including steel and timber sections.
- Bonding of hardened concrete in repair and restoration projects.
- Structural adhesive for a variety of construction applications, including masonry, stone, and composite materials
- Assembly and installation of architectural elements such as facades, panels, and cladding systems.
- Repair and reinforcement of concrete structures subjected to environmental stresses or dynamic loads.

### METHOD OF APPLICATION

**ASMACO POXY 95 CW adhesive** shall be applied as per the following general method of applications.

- Substrate Preparation:
- Ensure surfaces are clean and sound, free of any
- contaminants.
- Surfaces may be dry or damp, but standing water and frost must be absent.
- Optimal results are achieved with dry substrates.
- Remove all dust, dirt, laitance, grease, curing compounds, waxes, and foreign substances.
- Mixing:
- Preparation: Before starting the mixing process, it's crucial to ensure that both Component A and Component B are pre-stirred to achieve uniform consistencies and colors.
- Combine Components: Empty all of Component B (hardener) into the mixing container or pail containing Component A.
- Mixing Process: Use a low-speed drill, typically set between 400 - 600 rpm, fitted with an appropriate mixing paddle suitable for epoxy mixing.
- Duration: Mix the combined components for a minimum of three (3) minutes. This ensures proper blending and uniformity in color and consistency.
- Scraping: While mixing, periodically scrape down the sides and bottom of the mixing container or pail using a flat or straight edge tool. This action helps ensure that no unmixed epoxy remains and promotes a consistent color throughout the mixture.

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 Pot Life Consideration: It's essential to mix only the quantity of epoxy that can be used within its pot life. This helps prevent waste and ensures that the epoxy remains workable for its intended application duration.

Above stated steps will ensure thorough mixing of the epoxy components, resulting in a consistent and high-quality application.

#### **Applications:**

for applying the mixed Cold Weather epoxy to a concrete surface involves the following steps:

- Preparation: Ensure that the concrete surface is clean, dry, and free from any contaminants or debris that could affect adhesion.
- Application Tools: Use a trowel, spatula, or a gloved hand protected with appropriate gloves to apply the epoxy onto the concrete surface.
- Surface Preparation: Work the epoxy well into the surface, especially if the substrate is damp. This ensures good adhesion and penetration into the concrete pores.
- Thickness: Spread the epoxy paste to achieve the desired thickness according to project requirements. Typically, the thickness can be 3 mm (1/8 inch) on one face or 1.5 mm (1/16 inch) on both faces of the sections to be joined. Adjust the thickness based on the specific needs of the project and the structural requirements.
- Post-Tensioning Consideration: It's crucial to ensure that segments are post-tensioned within the open time of the epoxy. This ensures proper bonding and structural integrity of the joined sections.

By following above steps, can effectively apply the Cold Weather epoxy to concrete surfaces, ensuring proper adhesion and structural strength in cold weather conditions.

### **CLEAN UP**

ASMACO POXY 95 CW bonds strongly even to metal. We therefore recommend that tools are cleaned with solvent (ethanol, toluene, etc.) before the product hardens.

## PACKAGING & COVERAGE RATE

**Packaging:** 6 kg kit

Component A 4.5 Kg, Component B 1.5 Kg

## **Coverage for Smooth Finish:**

ASMACO POXY 95 CW is dependent upon surface conditions, site trials are recommended to ascertain actual usage on uneven substrates. As a guideline when applied at 200 microns WFT coverage is approximately 5 m $^2$  / Kg @ 200 $\mu$  wft

### TYPICAL PROPERTIES

Colour: Concrete grey

Consistency: Non-sag paste

**Mix Ratio:** A: B = 3: 1 by volume

Material conditioned to 7°C (45°F) and tested at temperatures detailed below)

Less than 3 minutes at 23 °C (73 °F) Approx. 20 minutes at 7 °C (45 °F)

**Open Time:** Approx. 60 minutes at 7  $^{\circ}$ C (45  $^{\circ}$ F)

**Compressive Strength** 

**ASTM D695:** 3 days  $\geq$  13.8 MPa at -6 °C (20 °F)

7 days  $\geq$  41.4 MPa at -6 °C (20 °F)

**Bond Strength ASTM C882:** 48 hours  $\geq$  6.9 MPa at 7 °C (45 °F)

**Bond Strength Hardened Concrete to Hardened** 

Concrete ASTM C882: 2 days (moist cure at 7 °C (45 °F)  $\geq$  6.9

MPa

**Heat Deflection Temperature:** 

7 days at 23 °C (73 °F) fiber stress loading = 1.8 MPa,  $\geq$  49 °C (120 °F)

## **HEALTH & SAFETY**

ASMACO POXY 95 CW For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN FOR INDUSTRIAL USE ONLY

## STORAGE & SHELF LIFE

Store in recommended controlled temperature place under cover, out of direct sunlight and protect from extreme temperatures. The product must be stored in 4°C between 35°C, The shelf life is up to 12 months in unopened conditions if stored as per guidelines.

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### **LIMITATIONS:**

limitations for the use of ASMACO POXY 95 CW adhesives are as follows:

**Fresh Concrete or Mortar:** Avoid using the adhesive for fresh concrete or mortar applications.

**Temperature Consideration:** Choose the appropriate grade of material based on the prevailing temperatures to ensure optimal performance.

**Pot Life and Application:** Apply the mixed material within the specified pot life to ensure effective bonding.

**Temperature Range:** Do not use the product outside of designated temperature ranges for best results.

**Setting Grade Selection:** Select the correct setting grade (regular or slow) depending on the method of erection.

**Thinning and Mixing:** Do not thin ASMACO POXY 95 CW adhesives with solvents, and only mechanically mix the components.

**Component Ratio:** Ensure that one Component B is added to one Component A to maintain proper chemical balance and effectiveness.

**Temperature Impact:** Understand that lower temperatures will prolong pot life, open time, strength development, and curing time, while higher temperatures will reduce these times.

**Aesthetic Consideration:** Note that the adhesive is not intended as an aesthetic adhesive, and the color may alter due to variations in exposure to UV lighting.

By adhering to these guidelines, users can maximize the effectiveness and performance of ASMACO POXY 95 CW adhesives in various applications while ensuring safety and optimal results.

## **Shipping Limitations: None**

Note

The information and data contained in the product data sheet is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of the product for usage. Since the supplier cannot know all the uses, or the conditions of use to which the product may be exposed, no warranties concerning the fitness or suitability for particular use or purpose are made. It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application Likewise if the application, product specifications or manner in which our products are used require government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

Non – Warranty: Because the storage, handling and application of the material is beyond Anchor Allied Factory Ltd's control, we can accept no liability for the result obtained. Anchor Allied Factory Ltd's sole limited warranty is the product meets the manufacturing specifications in effect at the time of shipment. There is no warranty or merchantability or fitness for use, nor any expressed or implied warranty. Anchor Allied Factory Ltd will not be liable for any incidental and consequential damage of any kind. The exclusive remedy for breach of such limited warranty is a replacement of any product shown to be other than warranted. Suggestions of uses should not be taken as inducement to infringe any patents.

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MFG. OF SILICONE, ACRYLIC & POLYURETHANE SEALANTS, WATER PROOFING COATINGS, SELF - ADHESIVE TAPES, SPRAY PAINTS, CONTACT ADHESIVE, PVC CEMENTS, EPOXY STEEL

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