



# ChemMasters®

# P.A.C. PLUS+™

## Pourable Anchoring Cement

### Quality • Innovation • Service

## P R O D U C T D A T A

### DESCRIPTION

**P.A.C. PLUS+** is a very rapid setting, cementitious mortar. It is compounded to withstand continual exposure to water and the elements. **P.A.C. PLUS+** is a non shrink product which bonds well to develop exceptional pull out strengths. **P.A.C. PLUS+** may be used at a pourable consistency for easy field use.

### USES

- Anchoring bolts, dowels, reinforcing rods, handrails, posts, hooks
- Grouting precast floors and walls
- Filling cracks or voids in concrete or masonry
- Interior or exterior, horizontal or vertical placements

### ADVANTAGES

- Sets in 6 to 12 minutes at 70°F (21°C)
- Not affected by continual exposure to water
- Shrinkage compensating formulation
- Excellent bond and compressive strength
- Premixed, ready to use, addition of admixtures or aggregates unnecessary
- Free of chloride ions or other components known to cause oxidation and deterioration of base concrete or metal
- Pourable for ease of placement in intricate voids or deep placements

### TECHNICAL DATA

#### ASTM A944 Pull Out Strength @ 7 days

| Diameter bolt | Pounds of force |
|---------------|-----------------|
| 0.50"         | 16,650          |
| 0.25"         | 4,826           |

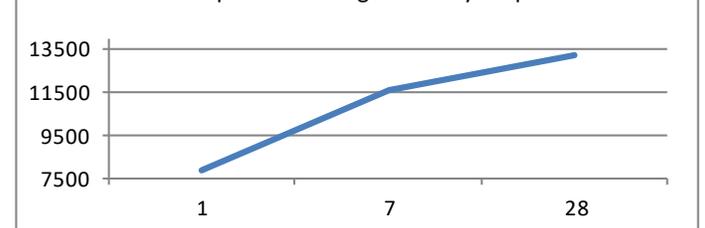
#### NYSDOT 701-11P.C (Section 4.6) - Rebar Pullout Strength

| Orientation | Pounds of force @ 7 days |
|-------------|--------------------------|
| Vertical    | 22,280                   |
| Horizontal  | 21,490                   |

#### ASTM C109 Compressive Strength Average of three 2 " cubes

| Day | psi   | MPa |
|-----|-------|-----|
| 1   | 7810  | 54  |
| 7   | 11610 | 80  |
| 28  | 13240 | 91  |

Compressive Strength at x days in psi



#### Packaging Product Number

|                      |               |          |
|----------------------|---------------|----------|
| 50 lb (22.7 kg) pail | 36 per pallet | F2020.05 |
|----------------------|---------------|----------|

#### Estimating Guide

| Package              | Yield  |
|----------------------|--|
| 50 lb (22.7 kg) pail | 0.42 ft <sup>3</sup> (0.012 m <sup>3</sup> ) |
| 10 lb (4.5 kg) can   | 145 in <sup>3</sup> (2376 cm <sup>3</sup> )  |

### DIRECTIONS

**MIXING:** **P.A.C. PLUS+** sets rapidly. Do not mix more than can be placed within 5 minutes of adding water. **P.A.C. PLUS+** is packaged ready to use. Do not extend by adding sand, cement, or aggregate. Do not add any type of admixture or attempt to re-temper mixed material, use at pourable consistency. Add 2.5 quart (2.4L) to 50 lb (22.7kg) or 1 pint (473 ml) to 10 lb (4.5 kg). Do not over mix. **P.A.C. PLUS+** will begin to take initial set rapidly.

March 2024



### ChemMasters® Inc.

American Made Products—Family Owned Company

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**General Placement Procedures:** To insure adequate pull out strengths, roughen inside surface of hole with a star drill or wire brush and/or enlarge top and bottom of hole diameter. Clean hole of all dust and dirt using oil free compressed air. Saturate drilled hole with clean potable water, removing any puddles or free standing water prior to placement of **P.A.C. PLUS+**.

**ANCHORING:** Drill hole in concrete 1/4 to 1/2 inch (0.64 to 1.3 cm) larger than bolt or bolt head diameter. Blow out all residue. For bolts less than 3/8 inch (0.95 cm), a washer should be placed on bolt resting on bolt head in bottom of hole. To increase the pullout psi increase the depth of the hole and length of bolt or anchor.

**FLOORS AND GROUND:** Pour a little **P.A.C. PLUS+** of batter consistency into the hole. Slowly work the bolt up and down a few times to eliminate air pockets. Fill remainder of hole, pouring from one side only. Hold mixing container high enough to create positive pressure as **P.A.C. PLUS+** flows into hole. Fill slightly above the surface. Brace bolt to hold in place until **P.A.C. PLUS+** stiffens. Trim and smooth around bolt. Allow a minimum 90 minutes, at normal temperature before tightening nut. Allow more time in colder weather and for heavy machinery and large installations.

**REPAIRS:** Surface to be repaired must be clean and free of all oil, grease, asphalt, curing or sealing compounds, dirt dust or other contaminants that might inhibit bond.

Enlarge cracks or holes to a minimum 3/4 inch (0.95 cm) width and depth. Remove unsound concrete or loose particles. Cut edges at right angle to surrounding surface, or under cut if possible. Do not "V" cut. All reinforcing steel must be cleaned to bright metal and coated with epoxy to prevent further oxidation. Saturate prepared surface with clean, potable water, removing any puddles or free standing water prior to placement of mortar.

Carefully tamp and compact mortar under reinforcing steel, into corners and around edges, filling voids and eliminating air pockets. Smooth with trowel and finish to match surrounding surface texture. **P.A.C. PLUS+** sets rapidly. If a slower setting mortar is desirable, contact ChemMasters for recommendations.

**CURING:** **P.A.C. PLUS+** generates considerable heat when used in quantity and continues to gain strength if damp. For optimum curing, keep repaired area damp by sprinkling with hose or covering with wet burlap for a minimum of 1 hour following finishing operations. Area may be opened to light duty service following curing period. During cold weather or when using **P.A.C. PLUS+** to set anchors on heavy machinery and equipment, allow a minimum of 4 hours before opening for service or further procedures.

## LIMITATIONS

- **P.A.C. PLUS+** hardens in 6 to 12 minutes. Prepare only enough for immediate use and wash tools and equipment quickly.
- Do not use in place of non-shrink grout under machine base plates or columns
- Above Normal Temperatures: At temperatures above 80°F (27°C.), cool part to be anchored, surface and/or hole with cool, potable water.
- Below Normal Temperatures: Do not apply below 40°F (4°C.) or to a frozen surface. Frost must be removed by heating. In cold weather, heat hole and part to be anchored before using **P.A.C. PLUS+** During 50 to 60°F (10 to 16°C) weather keep material warm and use lukewarm water to speed set. Due to the amount of heat generated, **P.A.C. PLUS+** is not recommended for large repairs or thick buildups.

## STORAGE

Store unopened pails on pallets under cover, out of direct sun, heat or moisture. Shelf life of properly stored material is two years from date of manufacture.

## PRECAUTIONS

**DANGER:** Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure if inhaled. **Precautionary Statements:** Obtain special instruction before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

**For professional use only.  
Keep out of reach of children.  
Consult safety data sheet before using this product.**

## THIS PRODUCT IS FOR COMMERCIAL USE ONLY – IT IS NOT A CONSUMER PRODUCT.

Before using this product read entirely this paragraph and the Manufacturer's Warranty and Limitations of Liability at [Chem-Masters.net/Warranty.php](http://Chem-Masters.net/Warranty.php) (or by using the adjacent QR Code) incorporated herein (collectively the "Terms"). To reject any of the Terms buyer must return the unopened product container at once to the seller from which it was purchased. By opening or using this product buyer accepts without objection or modification all Terms. Subject to applicable law, **MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE**, and buyer agrees that in lieu of all other remedies in manufacturers sole discretion it will either replace defective product or refund the reasonable purchase price, and in no event may you recover from manufacturer any special, incidental or consequential damages even if it was aware of the possibility of such damages.

