

Technical Bulletin # 1104

## Product Description

CWC 604 Machine Bond is a three-component, 100% solids, epoxy resin grout specifically formulated for grouting heavy machinery, engines and production equipment. It is designed to resist vibration, chemical attack, high torque loads and the various stresses associated with such installations.

Features:

- Excellent physical properties
- Flowable, self leveling
- Low exothermic cure
- Deeper monolithic pours (18"+)
- Extended placement time
- Easy water clean-up

## Basic Uses

- Heavy machinery
- Compressors and engines
- Production equipment
- Auxiliary equipment

## Installation Method

Pour in place, self-leveling.

## Package & Yield

A unit of CWC 604 Machine Bond consists of three components: Two liquids (Part A - resin, Part B - hardener) and an aggregate (Part C). Parts A and B are packaged in a two-component five gallon pail, and Part C is packaged in four 60 pound bags.

Yield	2 cubic feet (0.057 cubic meters)
Shipping weight	284 pounds (129 kilograms)
Freight Classification	Acid Proof Cement

## Surface Preparation

All surfaces to be bonded must be dry, sound and free from any contamination of foreign matter. Concrete surfaces should be prepared by mechanical abrasion such as chipping, bush hammering, sand blasting or similar methods. A rough surface will aid adhesion. Sandblasting is recommended in preparing metal surfaces.

## Forming

CWC 604 Machine Bond is a "flowing" grout and must be retained within forms until cured. Forms must be of adequate strength, properly braced and sealed watertight against leakage. Forms must be coated with a suitable release agent, such as paste wax, to permit their removal after the grout has cured. Forms should allow for hydraulic head, as needed, to facilitate the filling of the grout bed area.

## Proper Tools, Supplies and Accessories

All material and equipment for mixing, placing and clean-up should be on hand before any mixing is started. The use of a simple checklist is recommended for use by personnel involved in a CWC 604 Machine Bond installation. This list should include: rubber gloves, safety glasses, particle masks, protective clothing, electric or air drill and paddle attachment, concrete or mortar mixer and cleaning solvent. For a detailed material checklist, consult our brochure "CWC 604 Machine Bond Epoxy Resin Grout - Specifications for Installation".

ITW POLYMER TECHNOLOGIES

130 Commerce Drive • Montgomeryville, PA 18936 • 215-855-8450 • Fax 215-855-4688



ITW Philadelphia Resin  
Registered to ISO 9001:2000  
File No. A3750



ITW Performance Polymer Europe  
ISO 9001:2000  
Q14-09

## Mixing & Placing

Strict adherence to instructions printed on the container is essential. Resin and curing agent must be thoroughly mixed prior to adding the aggregate. Consult our brochure "CWC 604 Machine Bond Epoxy Resin Grout; Specifications for Installation" for detailed instructions.

All surface preparation and forming must be done before mixing procedures are started

## Temperature Factors Affecting Grouting

The temperature of all components of CWC 604 Machine Bond, Parts A, B, and C, should be 75° to 90°F (23.8° to 32.2°C) before mixing to produce a readily self-leveling grout with good flowability. Mixing grout materials when their temperatures are below or at the low end of the indicated ranges adversely affects proper mixing and inhibits the flowability of the grout. Mixing grout materials when their temperatures are above or at the high end of the indicated ranges hastens the cure of the grout thus reducing the "working time". The grout materials should be stored at a temperature within the ranges indicated. Work area and substrate temperatures should also be within the recommended temperature range.

## Technical Information

COMPRESSIVE STRENGTH:	16,100 psi
COMPRESSIVE MODULUS OF ELASTICITY:	$3.8 \times 10^6$ psi
TENSILE STRENGTH:	3,065 psi
TENSILE MODULUS OF ELASTICITY (ASTM D638):	$3.4 \times 10^6$ psi
FLEXURAL STRENGTH:	7,880 psi
FLEXURAL MODULUS OF ELASTICITY:	$2.0 \times 10^6$ psi
BOND STRENGTH (ASTM C882):	2,520 psi
SHEAR STRENGTH (ASTM D732):	3,910 psi
COEFFICIENT OF LINEAR THERMAL EXPANSION (ASTM D732):	$16.0 \times 10^{-6}$ in/in/°F
HARDNESS, SHORE D (ASTM C2240):	93
SPECIFIC GRAVITY:	1.89
POT LIFE:	3.5 hours @ 75°F
STORAGE CONDITIONS:	Store dry at 55° to 95°F, condition to 75° to 90°F prior to applying.
VISCOSITY:	Slurry consistency
SHELF LIFE:	1 year
PRECAUTION:	Caution: Eye and skin irritant (evidenced by itching, redness). Potential skin sensitizer. Avoid contact with eyes. Avoid prolonged or repeated skin contact. Do not take internally. Wash thoroughly after handling.

First Aid: Eyes - flush with water for 15 minutes. Get immediate medical attention. Skin – remove contaminated clothing and excess contaminant, wash skin with soap and water. Inhalation -remove to fresh air. Ingestion – get immediate medical attention. See Material Safety Data Sheet for complete information  
 Samples cured and tested at 75°F, 14 days.

NOTE:

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Warranty: ITW Polymer Technologies, a division of Illinois Tool Works Inc., warrants that its products meet their printed specifications. This is the sole warranty. This warranty expires one year after product shipment.

Warranty Claims: If any product fails to meet the above, ITW Polymer Technologies will, at its option, either replace the product or refund the purchase price. ITW Polymer Technologies will have no other liability for breach of warranty, negligence, or otherwise. All warranty claims must be made in writing within one year of the date of shipment. No other claims will be considered.

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