



METCOBOND

*Styrene Butadiene
Latex Additive for
Concrete and Mortar*

1. Product Description:

a. **Basic Use:** Metcobond is a styrene butadiene latex additive designed to increase bond, flexural and tensile strengths in cement-based mortars and concrete. Metcobond also increases chemical resistance and reduces permeability of conventional concrete. Metcobond is used as an admixture in thin-set mortars, stucco, tile grout, terrazzo, plaster, slurries, bond coats and concrete overlays and toppings.

b. Features/Benefits:

- Excellent adhesive properties improve bond strengths of fresh concrete to old concrete.
- Increased flexibility improves impact resistance of concrete and repair mortars.
- Increases chemical resistance of concrete by reducing permeability and coating cement matrix.
- Water-based compound contains no solvents or toxic odor.
- Easy-to-use by simply replacing a portion of normal mixing water with latex compound.
- Non re-emulsifiable latex admixture may be used in most structural concrete repairs and continuously wet applications.
- Excellent vapor transmission properties permit application over new concrete.
- Versatile formula allows both interior and exterior applications.

c. **Typical Applications:** Bridge deck overlays, concrete repair and patching mortars, bond coat slurries, admixture for stucco and plaster, parking garage repairs, driveway, sidewalk, swimming pool and curb repairs, and terrazzo.

d. **Limitations:** Keep Metcobond from freezing. Do not use when ambient and substrate temperatures are less than 40°F (4°C).

e. **Composition:** Metcobond is a single component, ready-to-use, styrene butadiene rubber latex compound.

f. **Color/Appearance:** Metcobond is the consistency of low viscosity paint and is a milky-white color. It will slightly darken concrete to a deeper gray color.

2. Packaging

Metcobond is supplied in 1-gal. (3.8 liter) jugs (4 jugs per case), 5-gal. (18.9 liter) pails, and 55-gal. (208 liter) drums.

3. Estimating/Coverage

Metcobond is recommended as an admixture in the following applications.

	Typical Proportions*		
	Bonding Slurry	Mortar	Concrete
Metcobond	4 gals. (15.1 liter)	3 gals. (11.3 liter)	12 gals. (45.4 liter)
Water	4 gals. (15.1 liter)	3 gals. (11.3 liter)	24 gals. (90.8 liter)
Cement	94 lbs. (42.6 Kg)	94 lbs. (42.6 Kg)	564 lbs. (256 Kg)
Fine Agg.	N.A.	300 lbs. (136 Kg)	1,600 lbs. (725 Kg)
Coarse Agg.	N.A.	N.A.	1,400 lbs. (635 Kg)
Coverage	300-450 sq. ft. (28 - 42 sq. m)	75-sq. ft. (7.0 sq. m) at 1/2 in. (12.7 cm)	140 sq. ft. (13.0 sq. m) at 2 in. (51 cm)

*Proportions will vary depending on aggregate gradations.

4. Technical Data

a. **Applicable Standards:** Metcobond conforms to the requirements of ASTM C 1059, Standard Specification for Latex Agents For Bonding Fresh to Hardened Concrete (Type II, non re-emulsifiable).

b. **Compressive Strength:** ASTM C 109, 2 in. (50 mm) cubes.

Age	Mortar with Metcobond	Plain Mortar
1 day	1,700 psi (11.7 MPa)	1,300 psi (9.0 MPa)
3 days	3,000 psi (20.7 MPa)	2,500 psi (17.2 MPa)
7 days	3,900 psi (26.9 MPa)	3,000 psi (20.7 MPa)
28 days	4,700 psi (32.4 MPa)	3,800 psi (26.2 MPa)

c. **Tensile Strength:** ASTM C 190

Age	Mortar with Metcobond	Plain Mortar
28 days	590 psi (4.1 MPa)	320 psi (2.2 MPa)

d. **Flexural Strength:** ASTM C 78

Age	Mortar with Metcobond	Plain Mortar
28 days	1080 psi (7.4 MPa)	530 psi (3.7 MPa)

5. Directions for Use

a. **Preparation:** Concrete surfaces must be roughened to produce a textured bonding surface. Clean surface thoroughly, removing all oil, grease, wax, curing compounds and other deleterious material. All loose particles must be removed by vacuuming and flushing with compressed air and water.

b. **Mixing:** Add the recommended amount of Metcobond in the proportions as shown in the Estimating/Coverage section. First, mix water with the dry ingredients to a no slump consistency; then add Metcobond and thoroughly mix. Adjust mix to desired slump with trim water.

c. **Slurry/Bond Coat:** After mixing, thoroughly scrub or work the slurry into the base concrete with a stiff broom, brush or squeegee.

d. **Mortar/Concrete:** After mixing, place the latex enhanced material onto the freshly applied bond coat. Finish to desired texture and appearance as it sets.

e. **Curing:** Cure concrete and mortar with wet burlap or wet rags for 24 hours. Remove wet cure no longer than 48 hours after setting. Allow system to air cure and dry out. Do not apply curing compounds or other surface sealers onto the latex enhanced mortar or concrete for seven days.

f. **Clean Up:** Use Waterzall Concentrate and water for cleaning tools and equipment

g. **Maintenance:** Metcobond surfaces should be cleaned with a Waterzall Concentrate and water solution. Metcobond enhanced concrete and mortar may be coated or sealed with standard concrete products.

6. Availability

Metcobond is normally available immediately from your local distributor or it will be shipped within 5 working days upon receipt of order. Please contact your local Metalcrete representative or call Metalcrete directly for more information.

7. Warranty

Metcobond is manufactured in strict accordance with the quality control standards of Metalcrete Industries. It is guaranteed to perform as indicated on this data sheet when applied by competent applicators.

8. Technical Service

Metalcrete technical service representatives are available to provide on-site assistance with a minimum three day notice.



Metalcrete Industries

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