# X-Bond Microcement



SURFACE ENGINEERING COMPANY

#### PRODUCT

SEMCO's most innovative custom engineered product is X-Bond Microcement, which is the core element in both the SEMCO Remodel without Removal<sup>™</sup> and SEMCO's ADA Safety Floor systems. It creates chemical bond at the molecular level to any solid surface. X-Bond Microcement is a zero VOC hybrid of natural stone and advanced cross-linking technology. Perfect for floors, walls, pool decks and waterproofing.

### **SUBSTRATES**

- Flexible waterproof membrane
- Breathable and chemical resistant
- Minimizes remodeling waste
- disposal
- Interior, exterior, and below grade application
- · Can be safely used in confined areas
- UV and freeze-thaw damage resistant

#### USES



(sq. ft. per 2 gallons of X-Bond Liquid and 1 50 lb bag of X-Bond Stone, coverage is based on 1/8" application)

Concrete	60 - 75
Painted surface	60 - 75
Ceramic tile	55 - 75
Vinyl tile	60 - 75
Natural stone	50 - 100
Metal	60 - 75







#### **APPLICATION**

Application	Smoother, Magic Trowel, Hopper Texture Gun and compressor
Application environment	Apply at temperatures from 45°F to 100°F
Color	White powder and white liquid
Chemical type	Polymer modified stone
Clean up	SEMCO Stone Soap with water
Shelf life	1 year in unopened containers (ambient temperature of 60F - 72F)
Packaging	1 gal. pail, 5 gal. pail, 55 gal. drum / 50 lb bag

## DRYING / RECOAT TIME



Drying times are affected by temperature and relative humidity. The chart represents guidline values but each project is to be treated individually.

The chart represents the time needed in between coats at specified temperature.

## **CURE TIME**



Curing time is affected by temperature and humidity.

For example at only 50F, a full cure would take 10 days in comparison to at 95 F it would only take 5 days to cure.

#### **TEST RESULTS**

Abrasion testing ISO 7784 with 10,000 rubs	Mass loss of 0.017g only
ASTM D-3960 - Volatile organic content (VOC)	Og / L
ASTM D-3l94 – Water content	48.9 %
ASTM D-2369 – Non volatile residue	25.9 %
ASTM C 1028-6 – Coefficient of friction (mineral)	DCOF 0.86
ASTM C 1028-6 – Coefficient of friction (all finishes)	0.78 dry, 0.63 wet
ASTM C 109 / C109M – 8 – Compressive strength	27 MPa = 3,800 PSI
ASTM C 674 – Modulus of rupture	2,200 PSI
ISO 7784 – Abrasion resistance, metal	10,000 cycles with 0.017g mass loss
ASTM D 4060-07 – Abrasion resistance, metal	1022 cycles w/ .05 mil loss
EN 1062-3 Water permeability test	Class W3 - 0,013 kg/(m2.h0.5)

#### PROCEDURE

#### **STEP 1 - PREPARATION**

- Execute appropriate preparation method to suit your needs before application. Reference to the SEMCO SIP Manual under the Surface Preparation Section.
- Test pH level after preparation ( optimal pH level is 6.8 7.8 )

#### STEP 2 - SCRATCH COAT / PRIMER COAT

- Mix X-Bond mixture 1 part X-Bond Liquid to 2 parts of X-Bond Stone, in this order, and mix with square mixing paddle at low speed (180-200 RPM)
- While the X-Bond Liquid is still tacky, pour the mixture to the mud tray, use a hand broom to spread material from left to right, NOT up and down
- Using hand broom spread material tightly, in ONE DIRECTION and allow surface to dry afterwards

#### STEP 3 - SKIM COATS

- Roll X-Bond Liquid as primer coat. Do not allow to dry
- Mix X-Bond mixture 1 part X-Bond Liquid to 2 1/2 parts of X-Bond Stone, in this order, mix with square mixing paddle at low speed (180-200 RPM) (OPTIONAL) Use integral color with X-Bond Color Activator
- Using a Trowel or X-Bond smoother for larger areas, tilt smoother with the handle pointing to 10 o'clock, spread material tightly, in ONEDIRECTION. Thickness is 1/16 or 2mil
- Allow coat of X-Bond to dry slightly to the touch (20-30 minutes) before applying second coat. Use shoe covers in between coats

#### TOOLS NEEDED

X-Bond Smoother

#### NOTES

- Extended application procedures can be found in the SEMCO SIP Manual. Procedures for cleaning of the flooring system during operations can be found in the SEMCO SIP Manual or upon request
- Acceptable moisture levels in concrete according to ASTM standard, when testing via ASTM F2170, the rH level of a concrete slab needs to be at or below 75% rH, unless otherwise instructed in writing from SEMCO Technical Support Division
- Procedures for cleaning of the flooring system during operations can be found in the SEMCO SIP Manual or upon request
- · Safety Data Sheets for SEMCO X-BOND Microcement are available upon request.
- Over time due to normal wear, abrasion, traffic and cleaning. Generally, high gloss coatings are subject to a reduction in gloss, while matte finish coatings can increase in gloss level under normal operating conditions.
- Excessive service conditions, such as steel- or hard plastic-wheeled traffic or dragging heavy metal equipment or loaded pallets with protruding nails over the surface, are categorized as misuse and abuse.
- Allowances must be made for scratches or abrasions that occur due to moving or sliding furniture or fixtures over the surface

#### PRECAUTIONS

Always test a small area first to determine ease of application and desired results. Gloves and eye protection should be worn during application. Do not mix with other cleaners. Not for use on humans or animals. If any contact with skin or eyes occurs, wash immediately with plenty of water. Be sure to read container label and Material Safety Data Sheet before using this product.

#### LIMITED WARRANTY NOTICE

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance to SEMCO Post Matrix procedure, recommendations and only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program. Federal, state and local specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request.



