

## POLYMER MODIFIED THIN SET FOR ADHERING STONE, THIN BRICK, VENEER, PAVINGSTONES & TILE

VB DS 05-17

### PRODUCT

VBM BONDER

### MANUFACTURER

ORCO BLENDED PRODUCTS  
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### DESCRIPTION

VBM BONDER IS A PREMIUM POLYMER MODIFIED, THIN SET BONDING MORTAR. PRODUCES VERY HIGH BOND STRENGTHS AND WATER REPELLENT PROPERTIES. THIS DRAMATICALLY REDUCES THE POTENTIAL FOR EFFLORESCENCE AND IMPROVES PERFORMANCE IN SUBMERSIBLE APPLICATIONS. IT IS A SINGLE COMPONENT SYSTEM REQUIRING ONLY THE ADDITION OF WATER.

### COLORS

AVAILABLE IN STANDARD GRAY, WHITE AND SPECIAL ORDER COLORS.

### USES

A WATER REPELLANT, THIN SET MORTAR FOR INTERIOR OR EXTERIOR BONDING OF CERAMIC TILE, THIN-BRICK, PAVINGSTONES, QUARRY TILE, SIMILAR MASONRY UNITS, AND CERTAIN STONE ON WALLS AND FLOORS. ALSO USED AS A THIN WATER REPELLANT SLURRY BOND COAT WITH VBM OR POLY DECK MUD IN THICK BED APPLICATIONS.

### ADVANTAGES

- HIGH BOND STRENGTHS
- WATER REPELLENT
- GOOD NON-SAG PROPERTIES
- REDUCES EFFLORESCENCE
- INTERIOR-EXTERIOR APPLICATIONS
- USE ON WALLS OR FLOORS

### PACKAGING

AVAILABLE IN 60 LB. MOISTURE RESISTANCE BAGS OR 50 LB. PLASTIC BUCKETS. SHELF LIFE IS APPROXIMATELY 6 MONTHS IN UNOPENED CONTAINERS, WHEN STORED IN A DRY PROTECTED AREA.

### COVERAGE

PER 60 LB. BAG MIXED WITH APPROXIMATELY 1 ½ GALLONS CLEAN WATER. USING A SQUARE NOTCHED TROWEL.

1/4" x 1/4" x 1/4"	(6x6x6 MM)	95-105 SQ. FT.
1/4" x 3/8" x 1/4"	(6x9.5x6 MM)	80-100 SQ. FT.
1/2" x 1/2" x 1/2"	(13x13x13 MM)	40- 55 SQ. FT.

### LIMITATIONS

NOT RECOMMENDED FOR GREEN MARBLE OR WATER SENSITIVE NATURAL STONE. APPLY IN THIN APPLICATION (<1/2"). AVOID APPLICATIONS IN HIGH HEAT, COLD OR WIND (FOLLOW ANSI AND ASTM RECOMMENDATION). DO NOT APPLY WHEN TEMPERATURES ARE BELOW OR EXPECTED TO FALL BELOW 40°F PRIOR TO CURE. SUBSTRATE MUST BE SOUND. ANY CRACKS OR EXCESSIVE MOVEMENT MAY TELEGRAPH THRU MORTAR OR CAUSE BOND FAILURE. ALWAYS PERFORM QUALITY CONTROL TESTING BEFORE AND DURING APPLICATION. PERIODICALLY REMOVE MASONRY UNIT SHORTLY AFTER INSTALLATION TO ASSURE MORTAR IS BONDING TO THE VENEER AND THE SUBSTRATE. FOLLOW LOCAL BUILDING CODE REQUIREMENTS. NOT RECOMMENDED OVER PARTICLE BOARD, MASONITE, LUAN OR HARDWOOD FLOORS. IT IS NOT A REPLACEMENT FOR A WATERPROOFING MEMBRANE.

### TECHNICAL DATA

MEETS THE SHEAR BOND STRENGTH REQUIREMENTS OF ANSI A 118.4 LATEX PORTLAND CEMENT MORTAR. VBM BONDER IS A BLEND OF PORTLAND CEMENT ASTM C150 SILICA SAND, R-MORTAR AID VBM AND POLYMERS. SHEAR BOND TESTING, CERAMIC TILE TO CERAMIC TILE.

OPEN TIME @ 70°F (23°C)	30 MIN.
ADJUSTABILITY @ 70°F (23°C)	10-15 MIN.
POT LIFE @ 70°F (23°C)	2 HRS.
COMPRESSIVE STRENGTH	
ASTM C109	>2500 PSI

### SHEAR BOND ANSI 118.4

NON-VITREOUS TILE	
7 DAYS	>300 PSI
28 DAYS	>400 PSI
VITREOUS TILE	
7 DAYS	>150 PSI
28 DAYS	>200 PSI

### INSTALLATION

**SURFACE PREPARATION:** SUBSTRATE MUST BE STRUCTURALLY SOUND AND CONFORM TO GOOD ENGINEERING PRACTICES. SUBSTRATE DEFLECTION UNDER LIVE, DEAD, AND IMPACT LOADS, INCLUDING CONCENTRATED LOADS MUST NOT EXCEED L/360 FOR THIN BED INSTALLATION OR L/480 FOR THICK BED STONE INSTALLATIONS, WHERE L=SPAN LENGTH. INSTALLATION SHALL BE IN ACCORDANCE WITH THE IBC, ANSI, CBC AND LOCAL BUILDING CODES. MOVEMENT JOINTS SHALL BE BROUGHT THROUGH MORTAR AND VENEER TO THE SURFACE. ALL SURFACES MUST BE SOUND, CLEAN, AND FREE FROM ANY DIRT, OIL, PAINT, BOND BREAKERS, EFFLORESCENCE OR ANY CONTAMINANTS WHICH MAY HINDER BOND.

**SUITABLE SUBSTRATES:** PROPERLY PREPARED AND SOUND.

- PREPARED CONCRETE (PREPARED)
- CONCRETE MASONRY
- CEMENT PLASTER
- CEMENT MORTAR BEDS
- GYPSUM BOARD (DRY INTERIOR WALLS ONLY)
- EXISTING CERAMIC TILE & MARBLE (PREPARED)
- EXTERIOR GRADE PLYWOOD (INTERIOR W/ R-FLEXAD ONLY)
- PORTLAND CEMENT BACKER BOARD (PREPARED)

CONSULT CEMENT BACKER BOARD MANUFACTURER FOR SPECIFIC INSTALLATION RECOMMENDATIONS AND TO VERIFY ACCEPTABILITY FOR ALL VENEERS OR JOB CONDITIONS.

**LATH AND CEMENT PLASTER:** SHALL CONFORM TO IBC, CBC, ASTM GUIDELINES AND VENEER MANUFACTURERS REQUIREMENTS. WE RECOMMEND OBP MAC SCRATCH AND BROWN PREMIUM TO PROVIDE A HIGH STRENGTH PLASTER SUBSTRATE.

**POURED IN PLACE CONCRETE (PREPARED) AND TILT UP CONCRETE (PREPARED):** INSURE ALL RELEASE AGENTS AND BOND BREAKERS ARE COMPLETELY REMOVED. MORTAR WILL NOT BOND TO SURFACES WITH ANY BOND BREAKERS STILL ON THE SUBSTRATE. THIS IS BEST ACHIEVED BY REMOVAL OF THE SURFACE LAYER BY BEAD BLASTING, SANDING, GRINDING OR EQUIVALENT. SMOOTH CONCRETE MUST BE ROUGHENED. HIGH-PRESSURE WASHING IS TYPICALLY NOT ADEQUATE FOR COMPLETE REMOVAL OF BOND BREAKERS OR RELEASE AGENTS. DAMPEN THE SURFACE JUST PRIOR TO APPLICATION, BUT DO NOT ALLOW WATER TO PUDDLE.

**CEMENT BACKER BOARD (PREPARED):** ALL JOINTS MUST BE TAPED WITH FIBERGLASS (OR EQUAL) TAPE AND VBM BONDER, R-LASTIC OR EQUAL. CONSULT CEMENT BACKER BOARD MANUFACTURER FOR SPECIFIC INSTALLATION RECOMMENDATIONS AND LIMITATIONS. A SUITABLE SUBSTRATE FOR BONDING DOES NOT MEAN IT IS ACCEPTABLE FOR ALL VENEERS OR JOB CONDITIONS.

**CERAMIC TILE SUBSTRATES:** EXISTING TILE MUST BE SOUND, WELL BONDED, CLEAN AND FREE OF ANY DELETERIOUS SUBSTANCE THAT MAY PREVENT ADHESION. SMOOTH SURFACE REQUIRE ROUGHENING TO PROMOTE BONDING. REPLACE THE MIX WATER WITH R-FLEXAD ACRYLIC ADDITIVE.

**PLYWOOD SUBSTRATES:** INTERIOR APPLICATIONS ONLY. USE ONLY OVER EXTERIOR GRADE PLYWOOD ONLY (EGP) 5/8" MINIMUM. WOODEN FLOORING SHOULD NOT HAVE A DEFLECTION EXCEEDING 1/360 OF SPAN IN EITHER DEAD OR LIVE LOADS. SECURING SHOULD BE DONE WITH SCREW-TYPE NAILS AND GLUE. A 3/16" GAP FOR EXPANSION SHOULD BE LEFT AROUND THE PLYWOOD SHEETS AND SURROUNDING MATERIALS. THESE GAPS SHOULD BE LEFT EMPTY AFTER THE INSTALLATION. REPLACE THE MIX WATER WITH R-FLEXAD ACRYLIC ADDITIVE.

**CONTROL JOINTS:** NEVER APPLY MORTAR OVER ANY EXPANSION OR CONTROL JOINTS. FOR MORE INFORMATION SEE TCNA (TILE COUNCIL OF NORTH AMERICA) HANDBOOK AND EJ171.

## MIXING

ADD 60 LB. BAG OF MORTAR TO APPROXIMATELY 1<sup>1</sup>/<sub>2</sub> GALLONS OF CLEAN POTABLE WATER. MIX BY HAND OR A LOW SPEED MIXER. AVOID WHIPPING AIR INTO THE MIX. HIGH AIR LOWERS STRENGTH. MIX MATERIAL THOROUGHLY AND ALLOW TO SET FOR 10 MINUTES AND THEN REMIX. DO NOT ADD ADDITIONAL WATER. FOR GREATER FLEXURAL BOND STRENGTHS, REPLACE THE MIX WATER WITH R-FLEXAD ACRYLIC ADDITIVE. FOR SLURRY BOND COAT APPLICATION MIX WITH APPROXIMATELY 2 GALLONS OF WATER PER 60 LB. BAG.

## APPLICATION

APPLY MORTAR TO THE SUBSTRATE WITH THE FLAT SIDE OF A NOTCHED TROWEL. FIRMLY PRESS MORTAR KEYING INTO THE SUBSTRATE. APPLY ADDITIONAL MORTAR USING THE NOTCHED SIDE OF THE TROWEL. SPREAD ONLY AS MUCH MORTAR AS CAN BE COVERED IN 10-15 MINUTES. USE THE CORRECT SIZE NOTCHED TROWEL TO MAKE SURE VENEERS ARE FULLY EMBEDDED (100% COVERAGE). PLACE TILE OR VENEERS INTO THE WET MORTAR AND BEAT INTO PLACE. DO NOT APPLY TO SKIMMED OVER MORTAR. BACK BUTTER LARGE VENEERS AND PAVINGSTONES 100% COVERAGE.

IMPORTANT: MORTAR MUST BE FIRMLY PRESSED INTO THE SURFACE OF THE VENEER AND SUBSTRATE TO ASSURE GOOD CONTACT AND BOND. DO NOT SIMPLY SLIDE MORTAR ONTO THE SURFACE.



USC GALEN CENTER - VBM BONDER TO BOND

ASSURE FULL COVERAGE AND BOND BY PERIODICALLY REMOVING AND INSPECTING THE BACK OF TILE. TILE OR VENEER THAT HAVE BEEN SET FOR MORE THAN 10-15 MINUTES CANNOT BE READJUSTED.

## AVAILABILITY / TECHNICAL SERVICES

CONTACT ORCO BLENDED PRODUCTS FOR DEALERS IN YOUR AREA AND TECHNICAL SERVICES AT 877-838-6726.

## CAUTION

PROLONGED EXPOSURE TO DUST MAY CAUSE DELAYED LUNG DISEASE. ELIMINATE EXPOSURE TO DUST. USE NIOSH APPROVED MASK FOR SILICA DUST. FRESHLY MIXED MATERIALS MAY CAUSE SKIN IRRITATION. AVOID DIRECT CONTACT WHERE POSSIBLE AND WASH EXPOSED SKIN AREAS PROMPTLY. IF ANY CEMENTITIOUS MATERIALS GETS INTO THE EYES, RINSE IMMEDIATELY AND REPEATEDLY WITH WATER AND GET PROMPT MEDICAL ATTENTION. SEE SDS.

## WARRANTY

THE TECHNICAL INFORMATION AND USAGE STATEMENTS ARE BASED ON OUR BEST KNOWLEDGE. THE CONTENTS OF THIS SPECIFICATION SHEET ARE PRESENTED FOR INFORMATIONAL PURPOSES ONLY AND DO NOT CONSTITUTE RESPONSIBILITY FOR THEIR USE. THE MANUFACTURER WILL REPLACE ONLY THAT MATERIAL WHICH IS PROVEN DEFECTIVE DUE TO QUALITY OF THE COMPONENTS OR THE MANUFACTURING PROCESS.

PRODUCT DATA SHEETS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION. TEST RESULTS SHOWN ARE TYPICAL BUT FIELD PERFORMANCE WILL VARY DEPENDING ON INSTALLATION METHODS AND JOB CONDITIONS. \*MAC AND VBM MORTARS ARE A TRADEMARK OF R-CRETE INC.