

PRODUCT DATA

STONDECK QB4 Fast Cure Balcony Waterproofing System



DESCRIPTION

StonDeck QB4 is a solvent-free methyl methacrylate based flexible coating system which provides a crack bridging, waterproof, long wearing surface for use over balcony decks, and pedestrian walkways and is designed to meet requirements of CSA S413-07.

USES/APPLICATIONS

StonDeck QB4 improves safety and provides an attractive, clean environment. StonDeck QB4 is suitable for refurbishment of existing balconies or new construction projects.

BENEFITS:

- Aesthetic – lightens up balconies and walkways
- Highly abrasion resistant
- Solvent-free
- Slip resistant
- Crack resistant – bridges existing cracks
- Excellent bond strength
- Fast track installations
- Low temperature installations – down to -5°C

MODEL SPECIFICATION

Product: StonDeck QB4 – Balcony Waterproofing Membrane
Finish: Semi Gloss
Thickness: 60-80 mils

SYSTEM COMPONENTS

StonDeck MMA Primer

A two component, low viscosity, methyl methacrylate primer to provide a strong, secure bond.

StonDeck Membrane

A two-component, low viscosity, flexible methyl methacrylate membrane to hold the broadcast aggregate and provide system thickness.

StonDeck Aggregate

A high-wear graded quartz aggregate broadcast to provide an abrasion, slip and wear resistant surface.

StonDeck UV MMA Sealer

A two component, low viscosity, pigmented, rigid, UV resistant, methyl methacrylate topcoat.

PHYSICAL CHARACTERISTICS

The figures that follow are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity

Tensile Strength (BS 2782: Part 3 Method 320A)	1 day – 5.4 MPa 7 day – 7.15 MPa 28 day – 7.17 MPa
Elongation (BS 2782: Part 3 Method 320A)	Membrane – 350% Sealer – 30% UV Sealer – 4%
Bond Strength (ASTM D-4541)	> 300 psi (100% concrete failure)
Fire Resistance (BS 476-3)	Designated EXT.F.AA
Slip Resistance (ASTM F-1679)	Dry - 1.20 Wet - 0.95
Temperature Resistance	Softens over 70°C (Hardens upon cooling)
Abrasion Resistance (ASTM D-4060, H-22, Taber Abrader, 1kg, 1000 cycles)	0.04 g max. weight loss
Water Permeability	Nil – Karsten Test (Impermeable)
Resistance to Chloride Ions (DOT BD47/94: Appendix B)	No chloride ion penetration after 28 days
Tear Strength (MOAT 27 Method 5.4.1)	192 N (43 lb)
Chemical Resistance	Resistant to gas, diesel hydraulic fluid, chlorides, antifreeze, oils, and battery acids

Note: Complies with the requirements of ASTM C957. (Tests: ASTM C501, C794, C836, D412 and D471)

SUBSTRATE REQUIREMENTS

Concrete substrate should be a minimum of 25 MPa, sound and free from laitance, dust, oils, and other contamination. Substrate should be dry to 80% Relative Humidity.

PACKAGING

StonDeck QB4 is packaged in units for easy handling. Each unit consists of:

StonDeck MMA Primer

(1) 5 gallon pail of MMA primer resin

Broadcast Aggregate

(5) 50 lb bags of quartz broadcast aggregate

StonDeck MMA Membrane

(1.25) 5 gallon pails of MMA membrane resin

StonDeck UV MMA Sealer

(2) 5 gallon pails of MMA Xpress Sealer resin

Catalyst

(0.6) catalyst - catalyst for StonDeck MMA resins

COVERAGE

Approximately 500 sq. ft. / 46.5 sq. m per unit at an approximate thickness of 60-80 mils.

STORAGE CONDITIONS

Store all components between 60 to 77°F / 16 to 25°C in a dry area. Keep out of direct sunlight. Avoid excessive heat and do not freeze.

COLOUR

StonDeck QB4 is available in medium grey. Custom colours are available upon request with extended lead times.

SPEED OF CURE

Foot Traffic	1.5 hours
Vehicle Traffic	2.5 hours
Full Chemical Cure	4.0 hours

CLEANING AND MAINTENANCE

For best performance clean regularly using a single or double rotary scrubber drier in conjunction with a mildly alkaline detergent.

ENVIRONMENTAL CONSIDERATIONS

The finished system is assessed as non-hazardous to health and the environment. The long service life and seamless surface reduce the need for repairs, maintenance and cleaning. Environment and health considerations are controlled during manufacture and application of the products by StonCor staff and fully trained and experienced contractors.

SUBSTRATE

Proper preparation is critical to ensure an adequate bond. The substrate must be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance. Laitance and unbonded cement particles must be removed by mechanical methods, i.e., abrasive blasting or scarifying. Other contaminants may be removed by scrubbing with a heavy-duty industrial detergent (Stonkleen TD9) and rinsing with

clean water. The surface must show open pores throughout and have a sandpaper texture. For recommendations or additional information regarding substrate preparation, contact StonCor's Technical Service Department.

PRIMING

The use of StonDeck MMA Primer is necessary for all applications of StonDeck QB4 over all substrates. The primer must be fully cured and the concrete must be completely sealed off prior to the application of the membrane.

POT LIFE

After mixing, the StonDeck QB4 components will have a working time of approximately 10 – 15 minutes. The working time varies greatly depending upon temperature and catalyst load.

BANDING

Proper banding of the cracks will ensure that the system is able to bridge the dynamic cracks found in most parking decks and outdoor walkways. Application of the banding is accomplished as follows;

1. StonDeck MMA primer is mixed and applied immediately to the floor. It is applied using a nap roller to a width of 2" (50 mm) wider than the planned application of the membrane layer. Broadcast aggregate is sparsely broadcasted by hand into the wet primer.
2. StonDeck MMA membrane is mixed and applied immediately to the floor. It is applied using a brush to a thickness of approximately 30 mils (0.8 mm). Apply the banding to an approximate overall width of at least twice the slab depth at that location. Allow one hour to cure.

APPLYING

Application of the StonDeck QB4 system is accomplished as follows;

1. StonDeck MMA Primer is mixed and applied immediately to the floor. The material is distributed using nap rollers. The broadcast aggregate is sparsely hand broadcasted into the wet primer. Allow one hour to cure.
2. StonDeck MMA Membrane is mixed and poured onto the primed floor. The material is distributed using nap rollers. After 5 minutes maximum, aggregate is broadcasted until refusal into the wet Membrane. Allow one hour to cure and remove excess aggregate.
3. StonDeck UV MMA Sealer is mixed and applied directly to the aggregate. The material is distributed using nap rollers. Ensure an even coat of approximately 8-10 mils is applied to seal the broadcast aggregate to the system. Allow one hour to cure.

Refer to StonDeck QB4 Directions for further details.

BUILDING INTERFACE / UPTURNS

Due to variance in construction methods, the interface between the balcony waterproofing system and building envelope waterproofing should be evaluated carefully on a case by case basis to ensure correct integration of the various components. StonCor Technical Services can provide additional information upon request.

RECOMMENDATIONS

- DO NOT attempt to install material if the StonDeck QB4 components are not within 50 to 77°F / 10 to 25°C
- DO NOT use water or steam in the vicinity of the application.
- The use of suitable protective clothing, gloves and safety glasses must be worn during mixing and application of the product. NIOSH/MSHA approved respirators are required.
- Avoid Contact! In case of contact with eyes, rinse immediately with copious amounts of water and seek medical attention. In case of contact with skin, clean immediately with water and soap.
- Product is highly flammable; keep away from heat and all sources of ignition. DO NOT SMOKE! Use only with adequate ventilation.
- Explosion safe ventilation must be used during the application to minimize vapour collection in the installation area and to improve overall air quality for the crew. A fresh air exchange should be set up if possible, in the installation area during application. A safety installation plan is available upon request.
- Avoid storing this material near any other StonCor products. The MMA based products will react violently if exposed to amine hardeners.

NOTES

- Material Safety Data Sheets for StonDeck QB4 products are available upon request.
- A staff of Technical Service Engineers is available to assist with installation or to answer questions related to StonCor Decking products.
- Requests for technical service or literature can be made through local sales representatives and offices or corporate offices located worldwide.

CATALYST DOSE CHART						
% by Weight of StonDeck MMA Resin						
Product/Temperature	30°C	25°C	20°C	15°C	10°C	0°C
StonDeck MMA Primer	2%	2.5%	3%	3.5%	4%	5%
StonDeck MMA Bodycoat	2%	2.5%	3%	3.5%	4%	5%
StonDeck MMA Membrane	2%	2.5%	3%	3.5%	4%	5%
StonDeck MMA UV Sealer	1%	1.5%	2%	2.5%	3%	4%

Important:

StonCor believes the information contained here to be true and accurate as of the date of publication. StonCor makes no warranty, expressed or implied, based on this literature and assumes no responsibility for consequential or incidental damages in the use of the systems described, including any warranty of merchantability or fitness. Information contained here is for evaluation only. We further reserve the right to modify and change products or literature at any time and without prior notice.

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95 Sunray Street • Whitby, Ontario • L1N 9C9 • Tel: 800.263.3112 • Fax: 800.786.6329

Vancouver • Calgary • Edmonton • Regina • Saskatoon • Winnipeg • Toronto • Ottawa • Halifax
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