



BARACADE M.E.

SILICONE MICRO EMULSION WATER REPELLENT

EUCLID CHEMICAL

PENETRATING SEALERS & LIQUID DENSIFIERS

BARACADE M.E.

Rev:01, 04/20

DESCRIPTION

BARACADE M.E. is an oligomeric alkyl alkoxy siloxane concentrate. When diluted with water, BARACADE M.E. self-emulsifies into a unique product capable of repelling water on concrete or masonry surfaces. BARACADE M.E. is a breathable, non-staining, colorless material which penetrates deep into the surface to seal out moisture, reduce efflorescence and minimize the damaging effects of freeze-thaw cycles. BARACADE M.E. protects without altering the appearance or texture of the treated surface and improves resistance to airborne dirt, smog and other air pollutants.

PRIMARY APPLICATIONS

BARACADE M.E./9 is mixed 9 parts water to 1 part BARACADE M.E. for vertical applications such as:

- Precast & prestressed
- Above grade
- Exposed aggregate
- Poured-in-place
- Concrete block

BARACADE M.E./4.5 is mixed 4.5 parts water to 1 part BARACADE M.E. for horizontal applications such as:

- Sidewalks
- Ramps
- Parking decks
- Bridge decks
- Industrial floors

TECHNICAL INFORMATION

Material properties tested under laboratory conditions 27°C, 50% RH

PROPERTIES	VALUE	Baracade M.E. Test Results NCHRP 244 Series II Tests		
			MINIMUM REQUIREMENT	BARACADE M.E./4.5
Flash point of concentrate	25°C			
Flash point after dilution	None			
Active Content (by weight after dilution)		Reduction in water absorption	75%	80%
BARACADE M.E./9	10%	Water vapor transmission	100%	121%
BARACADE M.E./4.5	18%	Reduction in chloride ion Intrusion	75%	83%
Appearance of Liquid	pale yellow	California Test Method (Cal trans)		
Appearance when dry	clear	Water absorption, 24 hours	1% max	0.65%
Resistance to UV	excellent	Freeze thaw cycles	200 max	433
Abrasion Resistance	excellent	VOC Content, ASTM D3960	400 max	349 g/L
Water permeance ASTM E514				
BARACADE M.E./9	passes			

PACKAGING

BARACADE M.E. is packaged in 210 L MS drums and 20 L MS pails .

SHELF LIFE

12 months in original, unopened container

COVERAGE

Because of variations in surface density, the following coverage rates are approximate and are intended for estimating purposes only. Use test applications on actual surfaces to accurately determine coverage rates. Extremely porous surfaces may require two coats.

VERTICAL APPLICATIONS SURFACE TYPE	BARACADE M.E./9 # OF COATS	m ² / L 1 st COAT	m ² / L 2 nd COAT
Poured and Precast Concrete	1	2.9 to 4.2	—
Slump Block	1	1.7 to 2.0	—
Brick and Stucco	1	2.0 to 3.1	—
Plaster and Stone/Tile	1	4.9 to 7.4	—
Standard Block ASTM C90 Grade N Type I)	2	0.98 to 2.0	1.5 to 2.9
Split Faced Block	2	0.98 to 2.0	1.5 to 2.9
HORIZONTAL APPLICATIONS	BARACADE M.E./4.5	m ² / L 1 st COAT	m ² / L 2 nd COAT
Concrete	2	2.4 to 3.7	2.4 to 3.7

DIRECTIONS FOR USE

Surface Preparation: Cure new concrete a minimum of 3 days before application. Surface must be clean, dry, structurally sound, free of curing or form release compounds, and other contaminants that will prevent the proper penetration of BARACADE M.E.. Prior to application, joints or cracks in movement must be properly sealed with an elastomeric joint sealant. Non-moving cracks or voids wider than 0.4 mm must be filled with a suitable patching material. Do not apply BARACADE M.E. to a wet surface. Surfaces must dry a minimum of 24 hours following rain or other moisture. Install caulking before BARACADE M.E. application. Mask or protect adjacent surfaces, including grass, plants, shrubs, glass, rubber, and asphalt from overspray or drips.

Mixing: BARACADE M.E. is supplied in a concentrated form and must be mixed with clean, potable water immediately before application. Prepared solutions must be applied within 12 hours of mixing.

Vertical Surfaces: BARACADE M.E./9 has a 9:1 mixing ratio 9 L of water to 1.0 L of Baracade M.E. Horizontal Surfaces: BARACADE M.E./4.5, has a 4.5:1 mix ratio. 4.5 L water to 1.0 L BARACADE M.E.) Special Conditions: For extremely dense, porous, or surfaces to be painted, contact your local Euclid Chemical representative.

Equipment: BARACADE M.E. should be applied with low pressure, non-atomizing, airless spray equipment using no more than 0.103 to 0.138 MPa air pressure. For proper application to most porous substrates, use spray tips with an orifice size no smaller than 0.9 mm. Some dense vertical surfaces may require smaller orifice sizes to prevent sags and run downs.

Application: Each coat consists of a light fog spray followed immediately with a flood coat. The fog spray wets the surface to break the surface tension and allows the flood coat to deeply penetrate the surface. The flood coat must be applied before the fog coat dries.

Dense Vertical Surfaces: On precast concrete and other dense surfaces, apply BARACADE M.E. in several fog coats to the point of saturation with no "run down". Roll out excess material to prevent surface build-up and curtaining.

Porous Vertical Surfaces: Spray a fog coat and follow immediately with the flood coat of BARACADE M.E. applied with uniform, overlapping, horizontal strokes. Use sufficient material for saturation and to cause an 8 to 20.3 to 25.4 cm rundown from the point of contact. Fully saturate mortar joints. One coat of material is generally sufficient, but very porous surfaces such as normal weight concrete block may require two coats. Excess material that remains on the surface may result in a glossy or discolored appearance.

Horizontal Surfaces: Apply two coats of BARACADE M.E. in a uniform coat "wet on wet basis" to the point of saturation. Do not apply more material than can be absorbed into the surface within 10 seconds. Remove

CLEAN-UP

Clean drips, runs and overspray residue while still wet, with detergent and water. Dried material may require solvent for removal. Clean application and spray equipment with detergent and water immediately following use.

PRECAUTIONS/LIMITATIONS

- Do not over dilute BARACADE M.E.
- Do not apply BARACADE M.E. to frozen or frost filled surfaces, or when the ambient or surface temperature falls below 4°C.
- Do not apply BARACADE M.E. to surfaces warmer than 35°C.
- Store between 40°F to 4°C to 29°C.
- Do not apply BARACADE M.E. if rain is forecast within 12 hours.
- Do not apply BARACADE M.E. to non-absorbent materials such as glass, metal, glazed brick, or glazed tile.
- Do not allow BARACADE M.E. to puddle. All product should penetrate the substrate with no surface build-up.
- A small (6' x 6') test area is strongly recommended prior to starting full application, in order to ensure desired performance results, aesthetics, and coverage rates. Allow 5 to 7 days for product to fully react before evaluating.
- In all cases, refer the Safety Data Sheet before use.