



BARACADE M.E.

SILICONE MICRO EMULSION WATER REPELLENT

EUCLID CHEMICAL

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, colourless material which penetrates deep into the surface to seal out moisture, reduce efflorescence and minimise 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* @ 25°C

Baracade M.E. Test Results NCHRP 244 Series II Tests

	Minimum Requirement	BARACADE M.E./4.5		
Reduction in water absorption	75%	80%	Flash point of concentrate	25°C
Water vapour transmission	100%	121%	Flash point after dilution	None
Reduction in chloride ion Intrusion	75%	83%	Solids by weight (after dilution)	
Water absorption, 24 hours	1% max	0.65%	BARACADE M.E./9	10%
VOC content, ASTM D 3960	400 max	349 g/L	BARACADE M.E./4.5	18%
			Appearance of liquid	Pale Yellow
			Appearance when dry	Clear
			Resistance to UV	Excellent
			Abrasion resistance	Excellent
			Water permeance ASTM E 514	
			BARACADE M.E./9	Passes

* Values presented are typical and are not necessarily referenced to create specifications.

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 (BARACADE M.E./9)

Surface Type	# of Coats	1st Coat	2nd 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 C 90 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)

Surface Type	# of Coats	1st Coat	2nd Coat
Concrete	2	2.4 to 3.7	2.4 to 3.7

PACKAGING

BARACADE M.E. is packaged in 20 L pails and 200 L drums.

SHELF LIFE

1 year in original, unopened bag

DIRECTIONS FOR USE

Surface Preparation: Cure new concrete 28 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 mix ratio. (34 L water to 3.8 L **BARACADE M.E.**)

Horizontal Surfaces: **BARACADE M.E./4.5**, has a 4.5:1 mix ratio. (17 L water to 3.8 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 airless spray equipment using no more than 15 to 20 psi (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 a 20 to 25 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 discoloured 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 excess material with a squeegee or paint roller.

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 overdilute **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 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.
- In all cases, consult the Safety Data Sheet before use.

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