

EMACO® 503

Fast setting hydraulic cement

DESCRIPTION:

EMACO 503 is a fast setting hydraulic cement designed to stop flowing water through holes and cracks in concrete and masonry surfaces.

RECOMMENDED FOR:

- Manholes
- Sewer pipes
- Tunnels
- Basement and masonry cracks
- Swimming pools
- Floor and wall joints

FEATURES/BENEFITS:

- Easy to use – just add water
- Sets fast – approximately three to five minutes
- Watertight repair – expands as it sets, giving excellent bond to surrounding concrete
- Compatible in appearance to concrete – requires no surface treatment
- Durable – stronger than average concrete mixes used for the same purposes

PACKAGING/ESTIMATING:

EMACO 503 is available in 50 lb (22.7 kg) pails. One 50 lb (22.7 kg) pail yields approximately 0.5 ft³ (0.014 m³).

PERFORMANCE DATA:

Compressive Strength

(ASTM C109 - Modified)

	psi	(MPa)
20 minutes	1000	(7.0)
1 day	2800	(19.0)
3 days	3300	(22.8)
7 days	4300	(29.7)
28 days	4800	(33.1)

Expansion

(ASTM C-157)

1 day	+0.04%
3 days	+0.08%
7 days	+0.09%
28 days	+0.11%

Final Set

Approximately 3 to 5 minutes

The following information regarding surface preparation, mixing, application and curing is provided as a brief overview. For detailed instructions before use of this product, reference the EMACO 503 product packaging.

SURFACE PREPARATION:

Substrate should be cleaned of all grease, wax oil, contaminants and curing compounds. All weak, contaminated or deteriorated concrete should be removed. Surface should be saturated with water. EMACO 503 will cure in the presence of running water. For best results, enlarge crack to a width and depth of 3/4 in. (19 mm); cut square or undercut. Do not cut in a "V" shape.

MIXING:

Add a small amount of clean water to EMACO 503 and mix to a consistency of putty. Approximately 20% to 25% water:product ratio by weight. Mix only enough material as can be placed in two minutes, 9.5 to 12 pints water to 50 lb product (4.5 to 5.6 L of water to 22.5 kg of product).

APPLICATION:

Hold product firmly in place for vertical applications or against moving water until final set is achieved; approximately 3 minutes.

In temperatures below 60 °F (16 °C) set may be delayed. Use hot water and warm material to speed setting time. In temperatures above 80 °F (27 °C) protect the material from hot sun and use cold water to slow setting time.

CURING:

EMACO 503 cures and continues to gain strength as long as it remains damp. It should be kept damp for a minimum of 30 minutes. Optimal strength is obtained when the product is wet cured for up to two days.

LIMITATIONS:

- EMACO 503 is a one component repair mortar which is formulated for industrial and professional use only, and must be kept out of the reach of children. These products contain chemicals which may be potentially HARMFUL to your health if not stored and used properly. Hazards can be significantly reduced by observing all precautions which are found on Material Safety Data Sheets, product labels, and technical literature. Please read this literature carefully before using this product.

RELATED BULLETINS:

Material Safety Data Sheet — EMACO 503

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