

TD.437 – TECHNICAL DATA: BACE-LINE™ 6.3M Self Leveling Structural Concrete Overlay

Revised: 1.18.18

Product Description:

BACE-LINE™ 6.3M is a self leveling, fast setting, high early strength, structural grade, concrete overlay, designed for leveling uneven concrete floors and as a form and pour structural repair mortar. No troweling required. Resistant to deicing salts. Application thickness can range from ¼” / 6mm to 2” / 50.8mm in a single pour and substantially thicker with additional approved aggregate load. Additionally provides increased corrosion protection of steel reinforced structures with natural corrosion inhibitors, and very low chloride ion permeability. Moisture sensitive coatings can be applied in 24 hours in most environments.

USES:

- Leveling uneven concrete floors
- Form and pour cavities and spalls in horizontal or vertical concrete structures
- Precision grouting under machinery

FEATURES:

- Self leveling (no troweling required)
- Supports epoxy coatings in as little as 24 hours
- 3 hour compressive: 3,300 psi.

Physical properties:

Compressive strength ASTM C 109	
3 hours	3,300 psi
24 hours	6,500 psi
7 days	9,000 psi
28 Days	10,200 psi
Flexural strength ASTM C 348	
7 days	1,500 psi
28 days	2,000 psi
Tensile strength ASTM C 190	
7 days	430 psi
28 days	660 psi
Bond strength ASTM C 882	
1 day	2,300 psi
7 days	2,450 psi
Length of change ASTM C 157	
28 days (dry)	-0.14%
28 days (wet)	+0.08%
Chloride Ion Permeability, ASTM C 1202 28 Days	Moderate (< 2550 Coulombus)
With approved HYDROPHO™ sealer	Very Low (<500 Coulombus)
Flow time (sec.)	12
Spread, cm	
0 Minutes	14.2
10 minutes	13.5
% retention	95.1
Working time @ 73F /23C	15 minutes

Application:

Prepare concrete by removing all contaminants and loose concrete and laitance using appropriate preparation standards. Dam edges to contain material to desired height. Apply BACE-LINE™ 6.3M primer to prepared substrate at 250 sq. ft. / 23.2 sq. M per 1 gallon and allow to dry (approximately 10-20 minutes at 73°F / 22°C).

Mixing:

This material is a very high density mortar, as such the following mixing equipment is required to quickly and efficiently mix the material.

For Large project pours: Hippo equipment or Collomix equipment is recommended.
For small pours a Collomix Xo 55 duo drill and double paddle is highly recommended.

After primer has dried, pour in 5 quarts of clean potable water into a 5 gallon pail or suitable-sized mixing container and slowly add powder to water (never add water to powder) Mix for 2 minutes or until all clumps are thoroughly wetted out using a variable speed drill and mix paddle (contact your Managing Director for recommended mixing paddle).

Pour out and spread with a trowel, screed rake or gauge rake to achieve maximum flow.
(Product will flow out and level over the substrate.)

After curing 8 hours @ 70°F a recommend single component sealer may be applied.
If topping with an epoxy coating, a light sanding if recommend after 24 hours placement.

For thicker applications:

Addition of coarse aggregate, meeting ASTM C 33 should be used for pours greater than 2 inches (50 mm) in depth. Add 25 lbs. of clean washed & dry ¼" pea stone or crushed granite per 50 lb. bag. Addition of aggregate will inhibit the ability to self level itself and may require some troweling for horizontal applications.

Excellent for form and pour spall repair applications or deep repairs of concrete structures.

Temperature of surfaces must be between 35°F and 90°F (2°C and 32°C) at time of placement.
For cold and hot weather placement, contact your Managing Director.
Working time is 15 minutes @ 73°F (23°C) Not recommended exterior for freeze thaw environments.

Important references available on request as validity of physical properties:

- CTL Group: ASTM C882 – Project 391649
- CTL Group: ASTM C1202 (AASHTO T277) – Project 391649
- CTL Group: ASTM C157 (modified per ASTM C928) – Project 391649
- AkzoNobel: Technical Report – Project ECS Formula #60