

DESCRIPTION: DURAFLOW is a pre-blended mix of Portland cement, fine and coarse aggregate, and other carefully selected additives. It is a high-strength, air entrained, pumpable concrete mix which may be used from a flowable to stiff plastic consistency. DURAFLOW is designed to comply with CSA A 23.1-00 Alternative (1) Table 13, "Alternative Methods of Specifying Concrete".

USES: DURAFLOW is recommended for new construction and repair of any existing concrete construction such as foundations, floors, sidewalks, etc. DURAFLOW is blended with a maximum aggregate size of 14mm (9/16") and is ideal for applications where thickness exceeds 2.5 cm (1").

- PROCEDURES:**
- 1. SURFACE PREPARATION:**
All surfaces to be in contact with DURAFLOW must be entirely free from oil, grease or any other foreign substances which interfere with the bond and chemical action of the material. Remove all loose or unsound concrete and roughen the exposed surface. Clean the area to be repaired with potable water, leaving the concrete saturated but free of standing water. Repairs on horizontal surfaces, pot holes etc., should be saw cut.
 - 2. MIXING:**
Add 1/2 amount of water into concrete mixer, paddle type is preferred. Empty the entire dry contents into the concrete mixer and mix thoroughly. Add remainder of water to a maximum of 2.58 litres (2.7 US quarts) of water per full bag. Mix for a minimum of 5 minutes, until the material has been thoroughly blended. Exceeding the maximum recommended water per bag is not recommended and will weaken the concrete.

<u>SLUMP</u>	<u>RECOMMENDED MAX. WATER /30 KG (66 lb)</u>
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125 to 175 mm (5" to 7")	2.58 litres (2.7 US Qt.)
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Hand mixing DURAFLOW is not recommended. Slump will vary with type and quality of concrete mixer.

- 3. PLACING:**
The ideal mix temperature for placing is between 10 - 20 °C (50 - 68 °F). The temperature of the surface to be repaired should be between 5 - 30 °C (41 - 85 °F). Adjusting mix water temperature will help achieve optimum mix temperatures in extreme weather conditions. It is not recommended that DURAFLOW be placed in freezing temperatures. If freezing temperatures are a possibility during the curing period, insulated curing blankets should be used to cover and protect the freshly placed concrete.
Apply a slurry of BASALITE CEMENT to the prepared repair area with a stiff bristle brush just prior to placing the repair material.

3. **PLACING (CON'T):**
Place the mixed material uniformly. Consolidate the fresh material well to eliminate voids and honey-combing. Use conventional well planned placing, consolidating and finishing concrete practices. Excessive trowelling of the patch in the early stages will weaken the surface of the patch.
If the material in the mixer begins to thicken or set, it should be discarded. Retempering "hot" material with additional water is not recommended.
4. **CURING:**
The concrete repair should be moist cured for a minimum of 48 hours after initial set. This is achieved most efficiently using water and burlap sacks or cloth. The curing water should not be used until the patch material is hard to the touch (i.e., after initial set). The new patch should be shaded from direct sunlight or excessive wind from the time of placement until initial set when curing sacks are in place. In very hot or windy conditions, the curing patch should continue to be shaded through the 48 hour curing period.

TECHNICAL DATA:

The data outlined below is representative of typical values achievable under controlled laboratory conditions. Results obtained in the field may vary from those stated.

	TEST METHOD	VALUE
Slump mm (mm)	CAN3 A 23.2-5C (ASTM C 143)	125 - 175 (5" - 7")
Air Content %	CAN3 A 23.2-4C (ASTM C 231)	5 ± 1 %
Compressive Strength	CAN3 A 23.2-9C (ASTM C 39)	
MPa (psi)		
1 day		7.5 (1088)
3 day		20 (2901)
7 day		32 (4642)
28 day		40 (5802)
Working Time		1 hour
Density: kg/m ³ (lb/ft ³)		2317 (145)
Yield: m ³ /bag (ft ³ /bag)		.014 (0.5)

LIMITATIONS:

Exceeding the maximum recommended water content per sack will result in inferior physical properties.
Liability for damages or defective goods shall be limited to the refund of the purchase price or product replacement.

PACKAGING:

DURAFLOW is packaged in 30 kg (66 lb.) triple-lined paper bags. All Basalite Dry Mix can be custom-packaged to suit specific project requirements.

SAFETY PRECAUTIONS:

DURAFLOW contains Portland cement. Normal safety wear such as rubber gloves, dust masks and safety glasses, used to handle conventional cement-based products, should be worn. Material Safety Data Sheets are available upon request.

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