

DESCRIPTION: REHAB MIX is a versatile Portland cement based concrete repair material containing silica fume and other carefully selected additives. It is a high-strength, dense, concrete-repair product which is ideal for repairing concrete exposed to aggressive chemical environments. It is designed to comply with CSA A 23.1-00 Alternative (1) Table 13, "Alternative Methods of Specifying Concrete", and meets the requirements for exposure class C-1 Table 11.

USES: REHAB MIX is used to repair concrete columns, beams, slabs or other structural concrete exposed to aggressive chemical environments such as those found in or near:

Marine structures.	Pulp mills.
Saw mills.	Food processing plants.
Swimming pools.	Parking structures.
Salted roadways.	Bridge decks.
Sulphur or potash handling facilities.	Ore-processing and leaching areas.

REHAB MIX is blended with a maximum aggregate size of 14mm and is ideal for applications where thickness exceeds 2.5 cm (1 inch). For applications less than 2.5 cm (1 inch), a sanded formulation is available.

ADVANTAGES: REHAB MIX has the following advantages:

1. High strength, high density, durable.
2. Low cost compared to organic repair products.
3. Engineered mix design.
4. Can be used in conjunction with corrosion inhibiting admixtures.

PROCEDURES: 1. **SURFACE PREPARATION:**
All surfaces to be in contact with REHAB MIX 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. Feather edging REHAB MIX is not recommended.

2. **MIXING:**
Empty the entire dry contents into a concrete mixer, paddle type is preferred, and mix thoroughly. Replace the portion not to be used back into the bag. Add up to a maximum of 2.5 litres (2.7 US quarts) of water per full bag. Mix until the material has been thoroughly blended and the required consistency obtained. Exceeding the maximum recommended water per bag is not recommended and will weaken the concrete.

<u>SLUMP</u>	<u>RECOMMENDED MAX. WATER / 25 kg (55 lb.)</u>
75-150 mm (3"- 6")	2.5 Litres (2.7 US Qt.)

Hand mixing REHAB MIX is not recommended.
Exact slump will vary due to mixing equipment and site conditions.

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 REHAB MIX be placed in

3. **PLACING (CON'T):**
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 coat of REHAB MIX to the prepared repair area with a stiff bristle brush just prior to placing the repair material. 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.

	<u>TEST METHOD</u>	<u>VALUE</u>
Slump	CSA A 23.2-5C (ASTM C 143)	75 mm (3")
Air Content %	CSA A 23.2-4C (ASTM C 231)	5 to 7 %
Compressive Strength	CSA A 23.2-9C (ASTM C 39)	
MPa (psi)		
1 day		20 (2900)
3 day		30 (4350)
7 day		50 (7975)
28 day		60 (8700)
Working Time		1 hour
Boiled Absorption	ASTM C 642	5 %
Vol. of Permeable Voids	ASTM C 642	10 %
Length Change	ASTM C 157	-0.045 % at 28 days
Shear Bond MPa (psi)	ASTM C 882	22 (3190)
Chloride Permeability	AASHTO T 277	"Very low"
Sulphate Resistance	ASTM C 1012	+0.002 % at 14 days
Density kg/m ³ (lb/ft ³)	ASTM C 185 (modified)	2317 (145)
Yield m ³ /bag (ft ³ /bag)	CSA A 23.2-6C (ASTM C138)	.012 (.42)

LIMITATION: Exceeding the maximum recommended water content per sack will result in inferior physical properties.
REHAB MIX should not be shot into place, use MICROSIL[®] SHOTCRETE for shotcrete application.
Liability for damages or defective goods shall be limited to the refund of the purchase price or product replacement.

PACKAGING: REHAB MIX is packaged in 25 kg (55 lb.) triple-lined paper bags.
All Basalite Dry Mix can be custom-packaged to suit specific project requirements.

SAFETY PRECAUTIONS: REHAB MIX 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.