

For presentations only

### SHIELDCRETE MIX DESIGN

Below is a technique of repair of damaged, contaminated, or aged concrete by thin layers.

1. Spray Kalmatron® KF-G (300 Gram/1 Liter of water) by 2 Liters/m<sup>2</sup> on area of application.
2. Apply PLASTCRETE no sooner than after 45 minutes.
3. Spray Kalmatron® KF-G before trowelling when shiny concrete surface is needed.
4. Curing is not required.

Material	UNITS OF MEASUREMENTS				NOTICE: proposed mix is designed for application of the layers with minimal thickness at 8 mm.
	Lbs	CF	Kg	m <sup>3</sup>	
Ordinary Portland Cement	564	2.86	342	0.1079	
Gravel Ø ¼" or 5 mm	750	4.63	445	0.188	
Coarse Sand	1830	13.10	1050	0.450	
Water 28 - 32 Gal*/Liter	235	5.45	140	0.140	W/C = 0.409 ÷ 0.417
Air content 3%	0	0.81	0	0.11	
KALMATRON® KF-A	17	0.17	10	0.0062	Or K <sup>100</sup> ® = 2 Liters or 0.41 GL;
<b>Total</b>	<b>3396</b>	<b>27</b>	<b>1980</b>	<b>1.000</b>	D = 2000 Kg/m <sup>3</sup> or 126 LB/CF;

### SHIELDCRETE BATCH INSTALLATION

- Batch must be no smaller than 200 Kg.

Turn on mixer for 2 minutes.

#### ■ W/C RATIO

1. Slump should be at 2 ½" to 3 ½" (6.35 cm to 8.90 cm) on a moment of application.
2. On a moment of delivery from plant maximum slump should be at 3 ½" to 5" (8.90 cm to 13 cm).
3. Add 1 Liter or ¼ Gallon of water if batch still stiff.

#### ■ ESSENTIALS AND CURING

1. Spray water slightly at 4 hours after application, but do not use curing compounds.
2. Do not cover fresh SHIELDCRETE with any films or blankets.
3. Depending on the Water to Cement ratios applied for both mixes preparation, the strengths expected to be:
  - Compressive strength is at 41 MPa to 50 MPa;
  - Tensile strength is at 7.5 MPa to 12 MPa.
  - Water impermeability > W 12

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