



Innovative & Decorative Concrete Technology

Hi-Crete Decorative Systems Pvt. Ltd.

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Method Statement Designer Stencil Flooring

Description:

Hicrete Designer Stencil Are Reusable Urethane Stencils, The Latest Innovation For Decorative Concrete. This New Technology Allows Alternate Ways To Create Shape And Form In Concrete Surfaces, Leaving Behind Crisp Clean Design Designs Possibilities: Compass, Roses, Medallions, Intricate Borders, Corners And Centre Designs. These Stencils Can Be Used With Integrally Coloured Concrete. Concrete Can Be Coloured Using S G Granular Pigments By Solomon Colors Inc. USA.

Material Required:

- 1 SG Granular Pigments
- 2 Reveal (Concrete Surface Deactivator)
- 3 Hicrete Super Blue
- 4 Hicrete Gloss Sealer-AC

Tools Required:

- | | |
|----------------------------------|---|
| 01 Designer Stencil Set | 07 Hand Edger |
| 02 Cage Roller Tamper-36" | 08 Hand Held Groover |
| 03 48" Mag Bull Float | 09 Grout Wheel- Correction Roller |
| 04 36" Steel Fresno Trowel Round | 10 Sealer Sprayer |
| 05 16" Mag Float | 11 Other Mics. Concrete Finishing Tools |
| 06 16"x 4" Rounded Trowel | |

Limitations:

- Do not mix or cast concrete if:
- Rain is expected in the proceeding 24hours period after application.
 - Avoid working in the direct sunlight or windy weather.
 - Temporary protection from weather must be provided all the duration period.

Sub-grade preparation (In the scope of Client)

The Sub-Grade Under Stamped Concrete Slab Can Make A Big Difference In The Overall Performance & Structural Integrity Of The Finished Concrete Slab.

Match The Thickness Of The Concrete Slab (For Example Slab Thickness Of 10cm)

The Entire Road Base Layer Must Be Installed Uniformly To Ensure & Provide The Following:

- Uniform Thickness Of Concrete Slab.
- Drainage Slope To Provide Sloped Concrete Slab Surface.
- Well Compaction Achieving 95% To Prevent Settlement.

Concrete Mix design *(In the scope of Client)*

M25 Grade Of Concrete Is Most Suitable For Stamped Concrete Work

It Should Contain The Following:

- 1 Minimum Cement Content 300kg/M³
- 2 Maximum Aggregate Size 10mm
- 3 W/C Ratio Should Be Less Than 0.55
- 4 Slump Should Not Exceed 140mm
- 5 **No Fly Ash To Be Added In Concrete Mix Design**

Avoid Addition Of Any Admixture Containing Calcium Chloride.

Do Not Add Any Water Reducing Admixtures.

Casting, Pouring & Placing of Concrete: *(In the scope of Client)*

M25 Grade Of Concrete Is Most Suitable For Stamped Concrete Work

A. Erecting Forms:

To ensure a proper stamping job pay attention to the following:

- Drive the stakes flush with or slightly below the top edge of the forms.
- Set the forms to the correct elevation of the slab & the proper slope.
- Lay the polyethylene sheets on the compacted sub-grade between the forms
(If Concrete Pouring is directly on compacted soil, base without base PCC)

B. Installing Reinforcement. (If Applicable As Per Pavement Design & Loading Conditions)

The Thickness Of Slab On Grade (Compacted To 95%) & Arrangement Of Steel Reinforcement Must Be Designed According To The Intended Use Of Max Load. Either Vehicles Or Pedestrian Only.

For Example: The Thickness Of 10cm For Slab On Grade (Compacted To 95%) And Steel Mesh Of 8mmdiameter Welded In A (20x20)Cm Grid Laid At The Middle Of The Slab To 1/3 The Depth From The Top Will Be Sufficient To Support Vehicle Traffic Of Maximum 5 Tons Load.

Note: If The Axle Load Is Greater Than 2.5tons Consult The Structural Engineer For Determination Of The Necessary Reinforcement Given The Intended Use & The Condition Of The Sub-Grade.

C. Mixing The SG Granular Pigment *(In The Scope Of Hicrete Systems)*

Colourflo SG Granular Pigments (Manufactured by Solomon Colors INC, USA) are added in to ready mix concrete @ 1% or 2% or 3% or 4% dosage rate wrt gross weight of cement and fly ash contained in the concrete. (e.g if Cement and fly ash will be 350 Kg per cum of RMC, then Colorflo SG Granular will be 7 Kg for 2% dosage - likewise)

D. Placing Concrete *(In the scope of Client)*

The Best Approach Is To Have The Ready-Mix Truck To The Placement Area & Deposit The Concrete Right From The Wheelbarrow.

Place The Concrete As Close To Its Final Destination As Possible To Avoid Segregation.

Spread, Screed & Vibrate (If Necessary) The Concrete So That It Completely Fills All The Space Inside The Forms.(General Spreading Activity – Not A Final Finish)

Using Wood Floats, Start Float The Concrete Surface To The Desired Level & Flatness Before The Appearance Of Excess Moisture.

Note:

To Eliminate Any High Low Spots, Strike Off The Surface Using Aluminum Beam Or Wood Stick.

Try To Bring Enough Cement Paste To The Surface While Striking Off To Help Wetting Out The Never Float Or Trowel A Surface That Has Standing Bleed Water On It.

To Remove The Excess Bleed Water, Use A Rubber Hose Of Plastic Conduit To Be Laid On The Surface & Be Dragged To The Outer Edges Driving The Bleed Water Out Of The Slab.

Keep The Surface Open Until Bleed Water Stops Coming Out Of The Matrix & The Surface Becomes Saturated Dry (The Water Does Not Sprinkle In The Surface.)

***At This Stage The Entire Work Finishing Activity Will Be Handed Over To Contractor's
Scope: - Hicrete Decorative Systems Pvt. Ltd***

Concrete Finishing (In The Scope Of Hicrete Systems)

Finish The Concrete Surface Using Special Tools & Trowels Like Power Floater / Mag Floater. You Can Add The Hicrete Dura Hard In Your Treatment If Required. Broadcast & Finish The Hicrete Dura Hard (Colour Hardener) In 2-3 Stages And Finish The Same Using Floaters Like Fresno Etc. Colour Hardener Dosage : 75 - 100 Sqft Per Bag Of 27.200 Kg

Designer Stencil Application (In The Scope Of Hicrete Systems)

Place The Stencil Designs As Per The Requirement / Drawing. Using The Trowels Like Fresno / Mag Float To Press The Stencils In Concrete. Make Sure The Entire Stencils Are Finished Completely In The Concrete & No Portion On Stencil Is Seen On The Top Of The Concrete. Finish The Concrete Surface Finally Using The Trowels & Wait Till The Entire Bleed Water Of The Surface Of The Concrete Goes Off.

Surface Retarder Application (In The Scope Of Hicrete Systems)

Once The Entire Bleed Water Of The Concrete Surface Goes Off, Apply The Surface Deactivator (Reveal) Using Special Spayers. Spray The Reveal Evenly On The Concrete Surface.

Pressure Washing (In The Scope Of Hicrete Systems)

On The Next Day, Wash The Concrete Surface Using High Pressure Jet Pump. This Will Remove The Stencils As Well As It Will Remove The Loose Portions Of Concrete (Due To Application Of Concrete Surface Deactivator)

Curing (In the scope of Client)

One Or Two Weeks Of Curing Required After Stamping.

Joints:

- Control Joints Should Be Spaced A Max Distance Of 24-36 Times The Slab Thickness.
- Control Joints Should Be Cut To The Depth Of At Least 1/4 Slab Thicknesses Using Electrical
- If The Slab Is Abutting Other Building Element Such As Manholes, Column, Walls And

Final Washing (In The Scope Of Hicrete Systems)

- Wash The Concrete Surface Using High Pressure Jet Pump.
- Use The Hicrete Super Blue (Cleaning Agent) To Remove Any Foreign Materials, Dirt / Dust If Pressure Washer Is Not Available, Wet The Surface Down With A Garden Hose Then
- Spray A Cleaning Solution (Hicrete Super Blue) Over The Surface & Start To Scrub In A Circular Motion With Medium Stiffness Bristled Broom.
- Pour More Water & Repeat Scrubbing Until All Dirt & Dust Gets Removed.
- Leave The Surface To Dry Before Apply The Sealer.

Note: Rotary Floor Buffer & Detergent Scrub Can Be Used.

Sealer Application: *(In The Scope Of Hicrete Systems)*

To Protect The Concrete Surface & To Enhance The Color, It Is Highly Recommend Sealing The Surface

- Avoid Application In Direct Sunlight Or During Strong Wind.
- On Hot Days Apply Early In The Day When The Temperature Still Low & The Concrete
- Sealer Can Be Applied By Roller, Brush Or Spray Pump.
- Two Application Of Sealer Is Preferred With An Interval Of 24 Hours Between The Two

Foot Traffic Is Allowed After 24 Hours Of The Last Application & 72 Hours Minimum For Heavy Traffic.