

METHOD STATEMENT



MONOLYTHIC FLOOR HARDENER

COSTAR BUILDING PRODUCT SYSTEM
Next Generation Solutions For Today's Construction

www.costarchem.com

1. SCOPE

This method statement describes the step by step procedure for using monolythic floor hardeners.

2. DESCRIPTION

This method statement describes the hardening of concrete floors for increased longevity and durability of industrial floors with liquid and powdered floor hardeners.

2.1 LIMITATIONS



- Products shall only be applied in accordance with their intended use.
- The most recent and relevant Product Data Sheets (PDS) and Safety Data Sheets (SDS) shall apply.
- This method statement is only a guide and shall be adapted to suit local products, standards, legislation or other local requirements.


3. REFERENCES

To ensure correct application of all components of Costar floor hardener, please refer to the following documents of each product component:

- PDS (Product Data Sheet)
- SDS (Safety Data Sheet)

4. PRODUCTS

		Product Description
Powder Floor Hardeners	<p>Costar Top 100</p> 	<p>Costar Top 100 contains special hardwearing aggregates which have been selected for abrasion and wear resistant properties as well as shape and size. It is specifically designed for hardening of freshly placed concrete. . They are ideally suited for all industrial areas subject to light or medium traffic.</p>
	<p>Costar Top 200</p> 	<p>Costar Top 200 is a hard wearing, factory blended ready to use cementitious system with a blend of 100 % pure emery -tuff and special fillers that hardens freshly poured concrete. They are ideally suited for all industrial areas subject to very heavy traffic.</p>

		Product Description
		Liquid Floor Hardeners
	<p>Costar Top 20</p> 	<p>Costar Top 20 is a low VOC lithium silicate based solution used to densify, harden, seal and protect fresh or hardened concrete. Costar Top 20 is recommended for use on areas where concrete floors are subjected to both light and heavy traffic.</p>

5. SUBSTRATE PREPARATION

Adequate surface preparation is required before the application of Costar floor hardeners.

5.1 Powdered Floor Hardener

- The base concrete must be laid in accordance with good concrete practice either in bays or long strips.
- Particular care must be taken at the corners and edges of the bays to obtain good compaction and to maintain level for subsequent trowel operations.
- If too much of free water is seen on the surface, water content in subsequent concrete must be reduced to obviate the presence of free water.
- Use of Costar plasticizer (Costamix 200) is advised to improve the workability of base concrete with a low w/c ratio.

5.2 Liquid Floor Hardener Old Concrete

- All residue, oil, sealers, waxes, contaminants and laitance must be removed from surfaces for maximum penetration.
- Remove unsound concrete and repair holes, cracks and deteriorated areas.

New Concrete

- Allow surface water glaze dry up.

6. APPLICATION METHOD/TOOLS

6.1 Powdered Floor Hardener

- The application should be made between 1 Hours-1.5 Hour or when surface water on concrete is completely evaporated. (When tested with Thumb, it leaves an impression but concrete does not stick to the Thumb).
- Broadcast first half (50%) of Costar Top 100 or Costar Top 200 evenly onto the screeded concrete.
- When surface darkens with the absorption of water, float.
- Immediately after floating, broadcast second half of Costar Top 100 or Costar Top 200 evenly as second layer.
- Wait till surface darkens and float.

Note: Power floating would be ideal. Floating is recommended with half or full disc.

Costar Top 100		
CONSUMPTION (Kg/m ²)	INTENDED TRAFFIC USE	AVERAGE WEARS(IS:1237-1980)
5.0	Medium	>2<3.5mm
3.0	Light	>3.5<4mm

Costar Top 200		
CONSUMPTION (Kg/m ²)	INTENDED TRAFFIC USE	AVERAGE WEARS(IS:1237-1980)
7.0	Heavy	<2mm
5.0	Medium	>2<3.5mm
3.0	Light	>3.5<4mm

6.2 Liquid Floor Hardener

New Concrete

- Spray first coat uniformly after surface water glaze is gone at the rate of 7m²/L.
- Apply second coat uniformly 4 hours later at the same rate in the opposite direction.
- Squeeze or wipe up all puddling.
- Fresh concrete placed in enclosed areas without adequate ventilation will hold water in concrete causing a super saturated condition. When Costar Top 10 and 20 are applied in such conditions, it may build on surfaces creating a very slippery jelly-like silicate residue. Flush with water and squeeze off residue before it dries.
- Re-apply Costar Top 10 and 20 after floor has thoroughly dried.

Old Concrete

- Apply two or more uniform coats at the rate of 7m²/L each coat as needed.
- Allow a minimum of 4 hours between coats.
- Provide adequate ventilation in enclosed areas to facilitate proper drying.
- Do not puddle.

7. INSPECTION, QUALITY CONTROL


As part of "Good Practice" the contractor shall apply an inspection procedure to check the quality of the applied protection system.

8. DISCLAIMER AND COSTAR COMPANY ADDRESS

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either expressed or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.



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