

Carbolink's Solutions for : **Floor Hardener**



Floor Hardener Product Specifications & Technical Data Sheets(TDS)

**India's Most Preferred
Construction Chemical Manufacturing Brand**



Carbolink India Pvt. Ltd.

WWW.CARBOLINKINDIA.COM



Carbolink India Pvt. Ltd. COMPANY PROFILE



For years, Carbolink India has been the Quality Leader in offering excellent Construction Chemical Products with Supreme Quality and Reliability.

Carbolink India Manufactures Industrial Flooring(Epoxy & PU Flooring), Decorative Flooring, 3D Flooring, Waterproofing Systems, corrosion protection, wood coatings, etc. which cater specifically to the Indian climate. With manufacturing facility in India, Carbolink India manufactures and supply Materials all through the country. Carbolink's commitment to customer service and technical support is the best. We work closely with architects, structural engineers, contractors and owners to best understand their requirements. Together we develop a best solution for a construction project, adding value and becoming more than just a materials supplier, but a solution provider.

With the support of our multinational manufacturing group, Carbolink India today has support centers across the country, strategically placed to provide consistent high standards of product and service.

Our Product Range:

- Anti Corrosive Coatings
- Car Park Flooring
- Curing Compounds
- Decorative Flooring
- Floor Hardner
- Grouts & Anchors



- Industrial Flooring
- Repairing Compunds
- Sealants
- Sports Flooring
- Tiling Products
- Wood Coatings



Floor Hardener

Floor Hardener is a quartz-silica mixture of finely graded non-metallic aggregates, plasticizer and cement binder. It is particularly valuable because of its non-rusting characteristics when floors will be frequently wet. Floor Hardener provides a dense, tough surface capable of withstanding the abrasion and impact loading seen by floors slabs of numerous industrial and manufacturing facilities.

Carbolink manufactures a full range of world class Floor Hardener systems providing the most up-to-date technologies. Carbolink India is a leader in tailored Floor Hardener Solutions.

Here is our Floor Hardener Products range:

Product Name	Page no.
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CLI FLOOR M - 4DF

Non-Oxidizing, Heavy Duty Metallic Floor Hardener

DESCRIPTION

CLI Floor M - 4DF is a dry shake, metallic floor hardener with cleaned and graded, non-oxidizing metallic aggregate in a high strength cementitious binder. Designed to be incorporated into fresh concrete slabs. CLI Floor M - 4DF provides a dense, tough surface capable of withstanding the abrasion and impact loading seen by floors slabs of numerous industrial and manufacturing facilities.

CLI Floor M - 4DF has been specially formulated with a non-rusting aggregate for increased abrasion resistance in areas subject to frequent moisture or water exposure. CLI Floor M-4DF can also be mixed in a mortar consistency and placed along joints to provide shoulder reinforcement.

ADVANTAGES

- Provides a high strength wearing surface in areas subjected to constant or frequently wet conditions without oxidizing
- Gives up to 6 times the abrasion resistance of plain, cured concrete
- Metallic aggregate is free of rust, oil or other contaminants
- Dense surface resists penetration of oil, grease, and many other liquids
- Virtually non-dusting in service, easy to clean and maintain
- Economical to own over the life of the floor
- Can be applied at coverage rates upto 14.6 kg/m²

APPLICATION

- Industrial Floors
- Warehouses
- Processing Plants like fertilizer/ Petrochemical units
- Vehicle maintenance shops
- Loading Docks
- Main, High Traffic Aisle ways/ Gangways
- Machine Shops
- Breweries & Bottling plants
- Joint shoulders reinforcement

APPLICATION METHODOLOGY

- For the standard application techniques of a dry shake floor hardener, a pre-job meeting is suggested to review the project concrete mix design as well as placement and curing details unique to the particular job. Base concrete should have minimum cement level of 300 kg/m³ and slump @ 50 to 70 mm. It should be minimum 50 mm thick in case of manual finish & 100 mm thick in case of power trowel finish.
- Diamond-Plate may also be used as a mortar in constructing armored floor joints. These joints provide added wear resistance at joint edges increasing the serviceable life of the floor.
- CLI Floor M - 4DF may be applied at rates from 4.9 – 12.2 kg/m². Higher application rates yield better abrasion resistance. Greater application rates may be used with special considerations.

CHARACTERISTICS

Physical Appearance	Cementitious grey powder
Abrasion Resistance	Treated concrete will give 400 – 500 % better abrasion resistance than control concrete
Compressive strength – 28 days	69 Mpa
Theoretical Coverage, kg/m ²	
• Normal Traffic	3 - 5
• Heavy Traffic	6 - 12

HEALTH & SAFETY

- Use mask, nose cover and hand gloves during application.
- Clean hands with soap water after application.
- Ensure adequate ventilation and avoid inhalation of dust.
- Avoid contact with skin / eyes. In case of unlikely contact with eyes, rinse immediately with plenty of clean water, then cleanse with soap and lukewarm water and seek medical advice.
Do not use solvent to clean the contacted area.
- Prevent swallowing. In case of unlikely swallowing, seek medical attention immediately. Do not induce vomiting.

PACKING

Available in 50 kg bag.

STORAGE AND SHELF LIFE

Store in a cool dry place, under shed, away from heat. The shelf life of product is 9 months in original unopened sealed condition.

CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.



CLI FLOOR NM - 40

Non-Metallic Floor Hardener

DESCRIPTION

CLI Floor NM - 40 is a quartz-silica mixture of finely graded non-metallic aggregates, plasticizer and cement binder. It is an economical concrete floor hardener recommended for both interior and exterior use. It is particularly valuable because of its non-rusting characteristics when floors will be frequently wet.

ADVANTAGES

- Hardens concrete in one economical operation
- Wear resistant-use of hard and properly graded aggregates increases the wear resistant over plain concrete floors
- Can be used in conjunction with vacuum dewatered concrete at maximum of 5 kgm² spread rate
- Non-rusting materials make it possible to use CLI Floor NM - 40 outdoors as well as indoors
- Special dispersing agent contained in CLI Floor NM-40 makes it possible for surface of low slump concrete resulting in exceptionally high surface strengths for maximum wear resistance

APPLICATION

CLI Floor NM-40 is used whenever floor surfaces will be subjected to light-to-heavy usage, whenever abrasion resistant or non-rusting floors are specified i.e. car park areas of commercial and public buildings, food processing & electronics industries, breweries, restaurants, dairies, automobile showrooms and service centers, warehouses, loading docks and high traffic aiseways.

APPLICATION METHODOLOGY

- These directions are to be followed for application of CLI Floor NM - 40 on well designed, non-air entrained concrete mixes. Keep air content of the concrete below 3%. Minimum cement content per cu m of concrete is 300 kg & slump required is 50 to 70 mm.
- Sub-grade and Reinforcing: Special attention should be given to a well-compacted and level sub-grade. A sub-grade that is not well compacted could cause cracking in the slab. Follow the specifications for use if reinforcing bars or welded wire mesh.
- Check the specifications for the amount of hardener required per square meter then stick the correct number of bags at each bay to be placed that day. This is important because it gives the finishers a "gauge" for applying the right amount of material.
- Place concrete between screed points and strike off a level of finished floor.
- Use float or darby to level surface. To remove excess water, drag surface with a burlap or sack.
- After the concrete has stiffened somewhat, open the surface by floating with hand wood or power float.
- For best results and uniformity of thickness, CLI Floor NM - 40 should be applied in two shakes using approximately two-thirds of the total amount for the first shake.
- First CLI Floor NM - 40 Shake: Immediately after the surface has been opened by floating, apply the first shake when the screeded slab is free of surface water and has set to a degree that when a man stands on the slab he leaves footprints about 5 mm deep maximum.
- Allow the first shake to remain unworked on the surface, until it has absorbed moisture and is of uniform colour. Then float with hand wood or power float. Immediately after, apply second shake at right angles to the first one, making application to the edges first.
- After second shake has absorbed its moisture, float in the same manner as outlined above working the edges then cross floating for a level surface.
- Steel Troweling: When the surface has set sufficiently so that no additional water or fines are brought to the surface, steel troweling shall be done on the floor. During this operation the trowel should be slightly raised to give a hard and smooth finish. Leave troweling operation half, if broom finish is required.
- Curing is essential for concrete floor treated with CLI Floor NM - 40. This can be done by using suitable curing compound manufactured by Carbolink India Pvt. Ltd. Alternatively using water ponding method or polyethene sheeting is also acceptable.

CHARACTERISTICS

Physical Appearance	Cementitious powder
Abrasion Resistance	Treated concrete will give 150 - 225 % better abrasion resistance than control concrete
Compressive strength – 28 days	60 – 70 N/mm ²
Theoretical Coverage	
Light Traffic	3.5 – 4.0 Kg/ m ²
Medium Traffic	4.5 – 5.0 Kg/ m ²
Heavy Traffic	6.5 – 7.0 Kg/ m ²

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