

ZELOHARD DSH

Cementitious Based Flooring
Dry Shake Hardner



TECHNICAL DATA SHEET

DESCRIPTION

- ZeloHard DSH is a ready-to-use freshly mixed cementitious powder that has been designed to give a durable and dynamic finish once applied and used as a dry shake over newly poured concrete.
- ZeloHard DSH consists of carefully chosen aggregates with high abrasion and wear resistance reactivity along with cementitious binders, polymers and admixtures to give a strong, durable surface Floor that is solid and colorful.
- ZeloHard DSH is nonmetallic, chloride-free, and creates a solid monolithic connection with the base concrete.

PRODUCT FEATURES

- Enables a harder and more lasting surface than concrete; reduces dusting and prevents oil and grease penetration, and making it simple to clean.
- The mix is factory prepared and ready to use, making spraying easier.
- Suitable for both indoor and outdoor use
- It comes in a wide range of colors and forms a monolithic connection with concrete.

TYPICAL USES:

- The dry shake process is used to provide a highly wear resistant and non-slip finish to newly built concrete.
- ZeloHard DSH is appropriate for a broad range of industries and applications and is used to produce a long-lasting yet cost-effective finish, especially in shops, production and storage spaces, workshops, warehouses, loading bays, car parks, heavy industry, and other locations prone to high traffic and mechanical stress.

METHOD OF APPLICATION:

- Estimate the whole amount of ZeloHard DSH to be used, divide and mark the available floor space into appropriate areas and distribute the bags equally around the perimeter of the application area. Determine that the necessary wooden hand floats and power floats are on hand and ready to use.
- High performance concrete is required to assure the floor's durability in service. ZeloHard DSH cannot strengthen or extend the life of weak concrete. ZeloHard DSH should not be used with vacuum dewatered or air entrained concrete.
- Pour concrete between earlier laid screed points as control as acceptable. Use a square-tipped shovel or other solid-bladed equipment to place the concrete. When using vibrators, they should be inserted vertically and not used to move concrete. After the concrete has been laid out, it is smoothed and cemented with wooden bull floats or hand floats. Clean any bleed water that remains on the surface.

ON THE FIRST SHAKE :

- Put the ZeloHard DSH powder from its packaging into pails that are small enough for the person walking on the recently floated surface to handle. When the concrete has hardened sufficiently to leave a 3 - 6 mm footprint on the surface, begin spreading 2/3 of the quantity equally throughout the surface. Begin to polish the surface with a wooden float as soon as the material darkens. Power floats can be chosen, but be careful not to overwork the surface, which will result in excessive moisture surfacing.

FOLLOWING THE SECOND SHAKE

- As the floating continues, immediately resume the work by distributing the remaining 1/3rd of the amount set aside at exactly 90 degrees to the first layer. While the surface has darkened, use an electric float to bring the moisture fully over.
- In cases of high load applications, the first wide cast will only be done with half the amount. Following that are two separate broadcasts, each with the quantity and at a right angle to each other.

FOR EDGES:

- The corners and edges require special care and attention since they are subjected to a lot of wear and tear.
- The side lines are generally built with one of the following methods:
- Spread by manually at a rate of 5 kg/m² in strips of 10cm width along the bay edges (ie, 0.5 kilogram every running meter) as soon as leveling the fresh concrete.
- OR, remove a 10mm thick wedge of concrete from the perimeter immediately after levelling the fresh concrete. Then, using a solid layer of ZeloHard DSH combined with clean water, apply it. This must be completely compacted to the base concrete. These reinforced sections will be hardened further once after the next whole process is finished.

IMPORTANT NOTES:

- The timing is critical in the application of ZeloHard DSH.
- It is important to ensure that enough people, materials, and machinery are available to complete the entire area while the moisture is still there for the surface to properly give and produce the necessary finish. On the other hand, if the surface is applied earlier than necessary when bleed water still exists, the whole effect will not be obtained. Finishing the surface should not be done with excess water as this might be harmful to the entire system and result in patch surfaces when using colored ZeloHard DSH.

CURING:

- Effective surface curing is essential for achieving the desired physical qualities of the completed floor to achieve the greatest effects. Brackish water should not be utilized to cure anything

PACKING & STORAGE:

- ZeloHard DSH comes in a 20 kg bag. Supplies must be delivered in big customized containers for on-site application or large-scale use.
- ZeloHard DSH should be kept in stores that are cold, dry, and shaded. When stored under cover, out of direct sunlight, protected from severe temperatures, and in accordance with guidelines, the shelf life is 12 months. The product must be stored in a cold environment in severe tropical climates.
- Excessive humidity and excessive UV exposure can shorten the shelf life.

HEALTH & SAFETY:

- Caution should always be maintained while using construction chemical products. While handling, protective clothes such as gloves and goggles must be used. For optimal protection, long-sleeved overalls, safety shoes, and a face mask are advised. After usage, reseal every bag and store the product as directed on the label's safety section.
- Avoid breathing the substance since it may cause chest pain. Any splashes on the skin or eyes should be treated immediately with fresh water. If any of the items are mistakenly consumed, do not induce vomiting; instead, seek medical attention immediately. Assemble the container so that the medical attendant may review any relevant instructions and contents details. If working in confined places, avoid inhalation and use proper ventilation or respiratory protection.
- Please see the MSDS for each Titan-Tech product for additional information.

PROPERTIES

- Standard Confirms to: BS 1881 part 116; ASTM C 779 89
- Appearance: Grey Powder
- Specific Gravity: 1.71G/CC
- Compressive strength: 85 N/mm²
- Mohr hardness: 7
- Abrasion resistance (BS 8204 classification): AR' requires 3 kg/m² ; Spl' requires 5 kg/m² Minimum resistance abrasion achieved: 220 % (normal concrete)

REQUIREMENT FOR FOUNDATION CONCRETE

- Minimum Compressive strength: 30N/mm²
- Minimum cement content: 300 kg /m³
- Minimum slump: 75mm to 90mm
- Maximum air content: 3 %
- Completely devoid of chloride admixtures and salt contaminated aggregates