PERFORMANCE STRUCTURAL CONCRETE SOLUTIONS

DELIVERING CONCRETE PERFORMANCE™

PSCS Quartz Top Dry Shake™

Non-metallic, Quartz Aggregate, Dry-shake, Floor Hardener

Description:

PSCS Quartz Top Dry Shake™ is a mixture of fine quartz aggregates, cement, and wetting agents. It is an economical dry-shake floor hardener that can be used on interior or exterior concrete. When PSCS Quartz Top Dry Shake™ is applied properly, it becomes an integral part of the concrete surface, providing a much harder, highly abrasion and impact resistant surface.

Applications:

- Industrial warehouse floors
- Loading dock areas
- Areas subjected to forklift traffic
- Industrial manufacturing floors
- Food storage distribution centers
- Cold storage and freezers
- Airport hangars and aprons
- Maintenance facilities
- Heavy equipment facilities

Features and Benefits:

- Ready-to-use (RTU) factory blended formula makes application simple and easy
- Increases abrasion and impact resistance
- Non-metallic aggregates make it possible to use outdoors and in wet areas
- Provides an extremely dense surface that resists liquid penetration

Application:

Coverage: 0.5 – 2.0 lb./ft² (2.45 – 6.0 kg/m²)
As a general guide, contractor shall refer American Concrete Institute (ACI) 302: Guide to Concrete Floor and Slab Construction.

Jobsite conditions that affect drying and setting times, also affect the hardener application time. The use of an experienced installation crew is strongly recommended. A mechanical topping spreader for larger project applications is also strongly recommended.

Note: If the contractor is not familiar with the standard application techniques of a dry shake floor hardener, a pre-installation meeting is suggested to review the subject concrete mix design as well as placement and curing details unique to the particular job.

Jobsite Conditions Affecting Drying: When concrete placement and hardener application is subject to any of the following: low humidity, high heat, wind, or extreme sunlight, the application of an evaporation reducer/surface set retarder just after bull floating is recommended.

Placing: The application of the dry-shake hardener depends on slump, jobsite conditions affecting drying, as well as coverage rates. Be aware that the edges and perimeter will set faster than other areas, so may be advisable to apply at edges first.

Dry-shake surface hardeners are designed to be placed after surface bleed water migration.

If applied by hand, after concrete has been screeded, and floated, apply 2 /3 of coverage ratio on first application. Allow the dry-shake to darken, absorbing the moisture from the slab, then wood bull float or machine float at the appropriate time. Immediately follow with the second installation of the remaining 1/3 and float. Final finish after the slab stiffens.

If applied by a mechanical topping spreader, apply the dry-shake immediately after screeding and floating in a single application, as long as application rate does not exceed 1 lb./ft².

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To achieve maximum performance, float and finish the dry-shake so that it fully integrates into the top surface of the concrete structure itself. Special attention should be given the edges. Edges should be worked by hand. Both hand trowel and power trowel blades shall be at a very low angle relative the concrete surface. Having a trowel at too high of an angle can cause blistering and may cause future delamination.

DO NOT ADD WATER TO AID IN FINISH. This will weaken the surface.

Curing:

The finished concrete surface can accept various forms of liquid curing agents, curing blankets, or covers.

Test Data:

Mohs hardness: 7

Abrasion resistance (Böhme test):

≤ 0.335631 cu. in./ 3.05119 cu. in. (≤ 5.5 cm^3 / 50 cm^3)

Abrasion resistance (Amsler test):

≤ 0.05512 in. (≤ 1.4 mm)

Compressive strength EN 196-1 (28 days):

≥ 10,152.6 psi (≥ 70 mpa)

Bending strength EN 196-1 (28 days):

≥ 1,160 psi (≥ 8 mpa)

Static puncture test:

0.004 in. (0.1 mm)

Dynamic puncture test:

0.112 in. (3 mm)

Storage:

PSCS Quartz Top Dry Shake™ are to be kept in dry storage in unopened bags. Given this, shelf life is 12 months.

Packaging:

55 lb. (25 kg.) bags

2,200 lb. (1,000 kg.) super-sack

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