

Desco Industrial Series Technical Data

DESCRIPTION:

Desco Industrial Series is a trowel-applied or layered thermo-setting flooring material that can be installed over any sound concrete surface. This product possesses exceptional resistance to wear, abrasion and to most acids, alkalis and solvents. The molecular cross-linking that occurs during the curing process creates these unique properties.

TYPICAL USES:

- Industrial Flooring
- Kitchen
- Locker, Change and Bathrooms
- Chemical Containment
- Laboratories
- Biotech Processing

PHYSICAL PROPERTIES:

<i>Compressive Strength</i> ASTM C-579	10,000 psi
<i>Flexural Strength</i> ASTM C-580	3,800 psi
<i>Impact Strength</i> MIL-D-3134F	Passes 16 ft/lb impact
<i>Fire Resistance</i> ASTM D-635	Self Extinguishing
<i>Taber Abrasion</i> ASTM D-4060	0.08 gm

The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

COLORS:

See High Performance Color Chart.

TEXTURES:

Orange Peel: Offers a smooth easily cleaned surface with a slight texture.

Translucent Aggregates: Can be incorporated into the top coats to offer a degree of slip resistance to meet the needs of the end user.

Medium: Smooth aggregates with peaks and valleys to mitigate trapped water under foot.

Aggressive: Smooth and angular aggregates with a thin polymer binder to lock in aggregates but not masking slip resistance.

SYSTEMS:

- TG Trowel applied by hand and/or power trowel offers maximum impact strength and wear. Available from ¼" to 1/8".
- LB Layered applied allows for varying textures from smooth to aggressive with the ability to build thickness to the needs of the environmental conditions.
- CA Coating application allows an economical system of multiple material coats at thicknesses of 10 to 30 mils.

OPTIONS:

- SA Steel aggregate can be added to the trowel or layered system to give enhanced impact resistance.
- CR All the above systems are offered with chemical resistant top coats, individually designed to meet the reagent exposure times and temperatures of aggressive chemical parameters.
- WM A waterproof membrane for suspended slab construction.

MOISTURE SLAB TESTS

One of the following three methods shall be used to determine moisture content of slab at time of application. These tests only measure the specific area tested at the time of the test and are not predictors of future substrate conditions.

Using a Tramax concrete moisture detection device, firmly apply the test apparatus to concrete that has had sealers or other subsequent coatings removed. The readings shall be 4.2% or less. If readings are higher, use ASTM F-2170 for non conditioned spaces and/or ASTM F1869 for conditioned spaces.

ASTM F-2170 in situ Relative Humidity Test. Follow test procedures of manufacturer of testing equipment. Reading should be below 80%. If above 80%, use the next test method below.

ASTM F-1869 Calcium Chloride Moisture Vapor Transmission Test. Follow test procedures of manufacturer of testing equipment. Results should be below 3 to 4 lbs/1,000 square feet/24 hours. (This test is valid only for conditioned spaces.)

SURFACE PREPARATION

Concrete: Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants. New concrete should be cured until moisture content is below manufacturers recommended standards. Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed. Remove any laitance or weak surface layers. Surface shall be prepared by recirculating vacuum Shotblast equipment and/or diamond grinder to a profile of CSP-3 (ICRI standard). Moisture vapor transmission should be tested as directed in MOISTURE SLAB TESTS SECTION. All surface irregularities, cracks, expansion joints and control joints should be properly addressed prior to application.

PRECAUTIONS

Floors should be sloped to drain to prevent standing water or chemicals. As with any surface, all spills should be removed as soon as possible to prevent a slipping hazard

A sheet good moisture barrier as designated by ASTM E-1745 Class A should be in contact with bottom side of concrete slabs on grade. A lacking or ineffective vapor barrier may cause moisture related problems, debonding, bubbling or discoloration.

A water cement ratio of 0.45 and 0.5.

A slump in the range of 3 to 4 inches, which can be increased by the use of super plasticizers.

Curing by ASTM C-171 sheet materials for curing concrete.

Do not apply systems when temperature is less than 5°F above the dew point.

Do not apply when substrate temperatures are below 50°F or above 95°F. (Material cures slower at cooler temperatures and working time will be substantially reduced at higher temperatures.)

Water from outside sources can cause water whitening of uncured polymer material.

Confirm product performance in specific chemical environment prior to use.

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