SURFIX™ DFS

TECHNICAL DATA

Compressive strength (ASTM C109):
1 hour 2,100 psi (14.5 MPa)
3 hours 4,500 psi (31 MPa)
24 hours 6,000 psi (41.4 MPa)
7 days 7,000 psi (48.3 MPa)
28 days 8,000 psi (55.2 MPa)

Approximate coverage (Yield) per 50-lb (22.7-kg) bag:
Up to 5 ft² (0.46 m²) at 1” (2.5 cm) or 0.41 ft³ (0.012 m³)

Installation thickness:
1/2"-2” (13-51 mm) thick
NOTE: Can be extended with aggregate for thicker installations

Application temperature range:
50-95°F (10-35°C)
NOTE: Above 85°F (29°C), use ACI Hot Weather Application Guidelines.

Set (ASTM C266):
Initial set 15 minutes
Final set 20 minutes

Scaling resistance to de-icing chemicals (ASTM C672):
25 cycles 0.71 lb/sq ft (3.5 kg/m²)

Freeze/thaw resistance (ASTM C666):
99.2% D.F.

Relative dynamic modulus (Procedure B):
300 cycles

Patch thickness limitations:
Light duty (cars)
Minimum 1/2” (13 mm)
Maximum 2” (51 mm) unextended
Heavy duty (trucks)
Minimum 2” (51 mm)
Maximum Unlimited extended

Applications over 2” (51 mm) thickness must be extended by the addition of pea gravel (see “Mixing”)

Color:
Gray

NOTE: Cooler temperatures, inadequate ventilation and higher humidity can extend drying times. All data derived from tests under laboratory conditions; field conditions may yield slightly different results.

DIRECTIONS FOR USE

Surface preparation:

Mechanically prepare concrete surfaces to a minimum Concrete Surface Profile (CSP) 4 to 5, as per the International Concrete Repair Institute (ICRI) Guideline No. 310.2-1997. Square off and vertical cut or undercut the patch area edges. Surfaces must be clean, sound, dry, minimum 50°F (10°C) and free of oil, gypsum

PENETRON SPECIALTY PRODUCTS

DESCRIPTION

SURFIX™ DFS is a high early strength, fast-setting,
cementitious compound used for areas where fast
repairs are necessary and the concrete surface must
be put back in service promptly. SURFIX™ DFS is excel-
lent for use in areas that are exposed to cold tempera-
tures. Used from 1/2"-2” (13-51 mm) thick and can be
extended wit8.1S..[(C(iR -0.i03-51)7 Cooeas that* [(r)31()31(esults.)]TJ /- 0.147 2.4667 -1.PPLICw T*9(A)6 SPECDIRECol)20(or:)]TJ /T1.147 Tw 1.1 asphalt, dirt, loose surface material or any contaminant that will act as a bond
breaker. Never use acid or mastic removers on any surface where a Penetron
Specialty Products material will be applied. Unsound concrete surfaces must be
prepared to solid sound concrete by additional means and methods, as per Interna-
tional Concrete Repair Institute (ICRI) Guideline No. 310.2R-2013 “Selecting and
Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair.”

NOTE: Moisten patch area thoroughly to a Surface Saturated Dry (SSD) condition with no standing water, keep continuously damp, for at least 1 hour before placement of the SURFIX™ DFS. Remove all standing water prior to placement.

Mixing:

Mix only an amount of SURFIX™ DFS that can be placed within a 10 minute working time. Wet the mixer for the first batch and allow to drain. Accurately measure the required amount of clean mixing water, 3.25 qt (3.1 l) per 50 lb (22.7 kg) bag of SURFIX™ DFS, and pour into the mixer. Start the mixer and slowly add SURFIX™ DFS. Mix for 1 to 2 minutes until a uniform lump free consistency is obtained. Never add additional water after initial mixing.

NOTE: High temperatures and over mixing will shorten working time, and cooler temperatures will prolong it.

Applications over 2” (51 mm) in thickness must be extended by the addition of 50% by weight of clean, Surface Saturated Dry (SSD), uniformly graded 3/8” (10 mm) maximum size pea gravel. Add 25 lb (11.3 kg) of pea gravel for each 50 lb (22.7 kg) bag of SURFIX™ DFS used. Add into the mixer only after a uniform lump free consistency is obtained (see above), then continue mixing until the pea gravel is fully encapsulated. Do not add additional water when using pea gravel.

Installation:

SURFIX™ DFS should be placed without delay and quickly consolidated by tamping.
The surface should be troweled or screed finished to a level slightly above the
surrounding concrete. When the material starts to set, edges can be shaved to blend
into the surrounding concrete. Large jobs require adequate personnel to permit
mixing, placing and finishing operations to occur simultaneously without interrup-
tion, in order to avoid cold joints and irregular curing. Consideration should be given
to providing stress relief (cold joints) for large patch areas. Mortar mixer can be used for larger installations. Curing:
compound. Alternatively, moist cure for 1 hour after final set. Increasing the wet cure
period improves physical properties and minimizes the possibility of cracking.

APPLICATION TOOLS

CLEAN UP

Clean all tools and equipment with water immediately after use, prior to material