

Freeze/Thaw Resistant

**Fast-Setting** Low Permeability **Corrosion Resistant High Strength** 



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**FASTCRETE DOT FA^{\text{\tiny M}}** is a fast-setting, low permeability hydraulic cement that contains fly ash and silica fume. It can be readily mixed with field sand, stone, and water to produce concrete specifically for DOT use in repairing bridge decks, highway overlays, parking garage structures, industrial concrete slabs, marine structures, and concrete roads. **FASTCRETE DOT FA**™ concrete has low chloride permeability, high freeze/thaw resistance and very high early strength which is designed to facilitate the opening of roadways, bridges, parking garages, and other concrete repairs to traffic in an extremely short time frame. FASTCRETE DOT FA™ meets ASTM C1600 Table 1 standard physical requirement for MRH and GRH cement.

#### ADVANTAGES

- Very fast-setting/High early strength
- Full-depth repairs
- Low permeability
- Excellent freeze thaw resistance
- No added chlorides
- Shrinkage compensated
- Open to vehicle in as little as 1-3 hours (at 70°F)

## RECOMMENDED DOT MIX DESIGN AND PERFORMANCE

| AND PERFORMANCE   |   |  |
|---|---|--|
| FASTCRETE DOT FA™ cement<br>Washed sand<br>3/8" aggregate<br>Water/cement ratio | 658 lbs.<br>1561 lbs.<br>1472 lbs.<br>0.41          |  |
| Slump ASTM C143:  | 7-9 Inches  |  |
| Set Time at 70°F (21°C):<br>ASTM C191 Mod.                                      | Initial<br>Final                                    | 56 min.<br>62 min.                           |
| Fresh Air Content ASTM C231:  | 4.0-7%  |  |
| Compressive Strength:<br>ASTM C39   | 4 hr<br>24 hr<br>7 day<br>28 day                    | 5000 psi<br>6000 psi<br>6400 psi<br>7500 psi |
| Surface Resistivity: AASHTO T358  | 28 day  | 22 Kohm*cm                                   |
| Slant Shear Bond Strength<br>ASTM C882  | 1 day<br>7 day                                      | 2880 psi<br>3100 psi                         |
| Flexural Strength<br>AASHTO T22   | 4 hr<br>1 day<br>7 day                              | 760 psi<br>900 psi<br>720 psi                |
| Length Change : AASHTO T160   |   |  |
| Wet Expansion   | 7 day   | 0.005%                                       |
| Drying Shrinkage  | 7 day<br>28 day                                     | -0.01%<br>-0.027%                            |
| Restrained Shrinkage Cracking<br>Resistance: ASTM C1581                         | 28day   | No Cracking                                  |
| Freeze/Thaw resistance<br>ASTM C666 - Procedure A                               | 300 cycles RDM 96%<br>300 cycles weight change 1.6% |  |

### SURFACE PREPARATION

The concrete surfaces must be completely cured, clean and free of any loose or friable material and structurally sound. All bond inhibiting materials such as paint, oil, curing compounds, waxes, sealers, gypsum, or any other material that may inhibit bonding shall be removed by mechanical means. Saturate the surface with water to a saturated surface dry condition immediately prior to the placement of **FASTCRETE DOT FA** $^{\text{\tiny{TM}}}$ .

## APPLY A TEST PATCH

Install a test patch at the maximum designed thickness anticipated on the project and subject it to anticipated service conditions before beginning the entire job.

## MIXING

Mix 658 lbs. **FASTCRETE DOT FA™** with 1561 lbs. of washed concrete sand (ASTM C33) and 1472 lbs. of 3/8 inch stone. The mixing water to cement ratio is 0.41. Mix all the components in a continuous volumetric mixer or similar. Do not mix more material than can be used in 15-20 minutes. Slight adjustment of liquid content to optimize application is acceptable; however, caution is advised because over-watering will compromise concrete performance.

## APPLICATION

Place and screed quickly. **FASTCRETE DOT FA**™ may then be troweled or floated. It may be broom finished, tined or float finished once is has stiffened to the desired consistency.

Clean up: Clean equipment and tools with water during and immediately after use.

## CURING

Moist cure applications immediately after finishing by misting with water or covering in wet burlap and polyethylene. A curing compound that meets ASTM C-309 is also acceptable.

#### LIMITATIONS

- Temperatures higher than 90°F (32°C), consult with Silpro's Technical Service Department
- All control and expansion joints must be carried through.
- Coating times depend on conditions and depth.

## PACKAGING

2000lb supersack

# STORAGE

Store in a cool dry place. Temperature should range between  $50^\circ F-80^\circ F$  . Keep out of direct sunlight. Precondition to  $70^\circ F+/$  -  $5^\circ$  prior to using.

## SHELF LIFE

1 year

# CAUTION!

SILPRO offers products that may contain cement, latex, epoxy, and other chemicals. Please review the Safety Data Sheet before the use of this product.

## GUARANTEE

Please visit www.SILPRO.com for a copy of the limited warranty.



