

Evaluation Table

| | |
|----------------------|-----------------------------|
| PEP ID: | XXXXX |
| Manufacturer: | Name of Manufacturer |
| Product Name: | Name of Product |

1016 Structural Concrete Patching
 1016 Structural Concrete Patching: Rapid Hardening Mortar
 ADOT Standard Specification: 1016-1, 1016-7
 Responsible Section: Materials Group

| Material Property | Specification/ Test Method | Requirement | Results | Pass/ Fail |
|--|---------------------------------------|--|----------------|-----------------------|
| Packaged Dry Concrete and Mortar Materials: General | 1016-1 | Packaged dry concrete and mortar materials shall be furnished premixed in a dry state including hydraulic cement, fine aggregate, coarse aggregate, and other ingredients as required for product performance. Only the addition of mix water shall be required at the site of the work. | | |
| Packaging, Labeling, and Storing | 1016-1.01 | The dry concrete or mortar material shall be packaged in suitable containers of such design that all of the contents may be readily removed, and shall be moisture resistant to prevent premature hydration of the hydraulic cement in the mixture. | | |
| Packaging, Labeling, and Storing | 1016-1.01 | The containers and labeling shall meet the applicable U.S. Department of Transportation Material Shipping Regulations, and the containers shall be of a material, or lined with a material, of such character as to resist any action or breakdown by the components. | | |

Last Modified: 3/11/2024

| Material Property | Specification/ Test Method | Requirement | Results | Pass/ Fail |
|-------------------------------------|-------------------------------|---|---------|---------------|
| Packaging, Labeling, and Storing | 1016-1.01 | Each package or container shall be clearly labeled with the product name, type and identification code, manufacturer's name, date of manufacture, batch or lot number, and such warnings or precautions concerning the contents as may be required by State or Federal Laws and Regulations. | | |
| Packaging, Labeling, and Storing | 1016-1.01 | Additional information shall be either marked on the package or attached to it. The additional information may include surface preparation requirements; mixing, placing and curing instructions; maximum amount of water to be used or maximum recommended consistency; recommended maximum usable working time "pot-life" and approximate consistency at the end of that time; and the allowable temperature range for preparation and placement of the material. | | |
| Packaged Dry Rapid-Hardening Mortar | 1016-7 | Packaged dry rapid-hardening mortar materials for use in rapid repairs to hardened concrete shall conform to the requirements of ASTM C928. | | |
| Composition | 1016-7 1016-5 | The packaged dry rapid hardening mortar material shall conform to the same requirements for rapid hardening concrete. If the material contains soluble chlorides or other ingredients in sufficient quantity to cause corrosion to steel reinforcement, the material will not be acceptable. | | |

| Material Property | Specification/ Test Method | Requirement | Results | Pass/ Fail |
|---|----------------------------------|--|---------|---------------|
| Structural Patching Type | ASTM C928 | ASTM C 928 R1 | | |
| Compressive Strength, min | 1016-7 ASTM C928 ASTM C109 | 500 psi at 3 hours | | |
| | | 2,000 psi at 1 day | | |
| | | 4,000 psi at 7 days | | |
| | | The strength at 28 days shall not be less than the strength at seven days. | | |
| Bond Strength (Slant Shear), min | 1016-7 ASTM C928 ASTM C882 | 1,000 psi at 1 day | | |
| | | 1,500 psi at 7 days | | |
| Length change, based on length at 3h | 1016-7 ASTM C928 ASTM 157 | Allowable increase after 28 days in water +0.15 % | | |
| | | Allowable decrease after 28 days in air -0.15 % | | |
| Slump, min* | 1016-5 ASTM C928 ASTM C143 | R1 consistency after 15 min after addition of mixing liquid, 3 inches | | |
| Scaling resistance to deicing chemicals after 25 cycles of freezing and thawing, max (requirement = Concrete, max visual rating, 1) | ASTM C928 ASTM C672 | ASTM C672 was withdrawn in 2021 and is not currently applicable. Reinstatement attempt resulted in negative votes with no resolution. No replacement test has been named in ASTM C928 as of (verify and insert date here). | | |

*Slump or Flow requirements are waived for materials intended for vertical or overhead applications.