COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 3520-12

Product Evaluation Coordinator
Colorado Department of Transportation
4670 North Holly Street, Unit A
Denver, Colorado 80216

Material code: 712.10.02.00

FOR INTERNAL CDOT USE

Material code description full name: Adhesive, Concrete Anchoring Agent

PART 1

Product name: Pure50+

Product category: Adhesive\Anchoring, Lateral\Epoxy

Product representative (name & address):
Attn: Robert Antoinette
Powers Fasteners, Inc
2 Powers Lane
Brewster, NY 10509
Phone: (914) 235-6300 FAX: (914) 576-6483

Manufacturer (name & address):
Attn: Robert Antoinette
Powers Fasteners, Inc.
2 Powers Lane
Brewster, NY 10509
Phone: (914) 235-6300 FAX: (914) 576-6483

Web-site address: www.powers.com

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Description of the product: (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)
The Pure50+ is a two-component, high strength adhesive anchoring system. The system is designed for anchoring and bonding threaded rod and reinforcing bar into drilled holes for concrete base materials. The system shows consistent performance in low and high strength concrete (2,500 psi to 8,000psi). It is evaluated and recognized for freeze/thaw performance and for long term and short term loading. The cartridge design allows for multiple uses using extra mixing nozzles. The product is available in 21 and 51 ounce cartridges. The mixing nozzles proportion the adhesive and provide a simple delivery method to drilled holes. Independently tested to meet ASTM C881 Types I, II, IV, and V, Grade 3, Classes B and C. Tested in accordance with ICC-ES AC308. Compliant with NSF/ANSI Standard 61 for drinking water system components. Ambient and base material temperatures must be a minimum of 50°F. Gel time at 68°F is 25 minutes, cure time is 8 hours. Compressive strength of 23,950 psi per ASTM D 695 at 50°F. Bond strength of 2,790 at 2 days and 2,995 at 14 days per ASTM C 882.

Restrictions, (installation and/or use):
Minimum base material temperature of 50° F.

Use of the product, (be specific to CDOT highway activities only):
Anchoring of threaded rod or reinforcing bars into drilled holes in concrete base materials.

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):
Can be installed into dry or water saturated holes. Tested and evaluated for use in cracked and uncracked concrete base materials. NSF/ANSI 61 compliant. Partially used cartridges may be used at a later date if stored properly and within shelf life. Two year shelf life. High strength developing epoxy. Available in 21oz. cartridges for ease of use. Please contact Powers corporate offices for bulk kits.

Specifications, (listing those applicable is required) **& Certificate of Compliance** (required to certify compliance with listed specifications):

- ☐ CDOT :
- ☒ ASTM : C 881, Type I, II, IV, & V, Grade 3, Classes B and C
- ☒ AASHTO : M 235
- ☐ FHWA :
- ☐ other :

Product testing, (from national/independent laboratories or universities) **& Certified Test Report** (CTR required to validate all claims):

- ☐ NTPEP-AASHTO :
- ☐ FHWA :
- ☒ other : Stork Twin City Testing Corporation (4-27-2011)
- ☒ other : SOR Testing Laboratories, Inc. (10-22-2010)

State DOT Approvals, (current documentation required):
Florida, Indiana, Kansas, Minnesota, Tennessee, Texas

Sample submitted: ☒ yes ☐ no ☐ n/a | Materials Safety Data Sheets (MSDS): ☒ yes ☐ no ☐ n/a

Notes/Additional Comments
Powers has many distributors throughout Colorado which make the product readily available when needed on a project.