



BOBBY JINDAL
GOVERNOR

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Materials and Testing
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SHERRI H. LEBAS, P.E.
SECRETARY

January 10, 2013

Mr. Robert Antoinette
Staff Engineer
Powers Fasteners, Inc.
2 Powers Lane
Brewster, NY 10509

Re: Pure 50+ & Pure 110+

Dear Mr. Antoinette:

The Department has completed the evaluations of above referenced products. The field tests show that **Pure 50+ & Pure 110+** conform to the Department's specifications for Adhesive Anchoring Systems for Concrete.

Powers Fasteners, Inc.'s Pure 50+ & Pure 110+ have, therefore, been approved and added to the Qualified Products List 40 for Concrete Anchor Systems & Qualified Products List 52 for Adhesive Anchor Systems for Deformed Tie Bars & Dowel Bars as follows:

**QPL 40
CONCRETE ANCHORING SYSTEMS
(C) INJECTION SYSTEMS**

| Product Source Code | Product | Bolt Size mm (in) | Approx Cure Time | Min Embed. mm (in) | Working Loads | | | | Source |
|---------------------|-----------|----------------------|-------------------------------|-----------------------|----------------------|----------------|---|--|--------|
| | | | | | Pull-Out kN (lbs) | | Shear kN (lbs) | | |
| 4078 | Pure 50+ | 9.5 (3/8) | 8 hrs. @ 25°C (77°F) | 86 (3-3/8) | 9.5 (2,125) | 7.1 (1,585) | Powers Fasteners, Inc. 2 Powers Lane Brewster, NY 10509 | | |
| | | 12.7 (1/2) | | 114 (4-1/2) | 17.3 (3,890) | 12.9 (2,900) | | | |
| | | 15.9 (5/8) | | 143 (5-5/8) | 26.3 (5,920) | 20.6 (4,625) | | | |
| | | 19.1 (3/4) | | 171 (6-3/4) | 40.6 (9,120) | 30.4 (6,845) | | | |
| | | 22.2 (7/8) | | 200 (7-7/8) | 50.7 (11,435) | 42.0 (9,445) | | | |
| | | 25.4 (1) | | 227 (9) | 72.7 (16,340) | 55.1 (12,395) | | | |
| | | 31.8 (1-1/4) | | 286 (11-1/4) | 88.6 (19,925) | 88.2 (19,830) | | | |
| 4079 | Pure 110+ | 9.5 (3/8) | 8 hrs. @ 25°C (77°F) | 86 (3-3/8) | 11.4 (2,560) | 9.9 (2,225) | Powers Fasteners, Inc. 2 Powers Lane Brewster, NY 10509 | | |
| | | 12.7 (1/2) | | 114 (4-1/2) | 22.2 (4,985) | 18.0 (4,055) | | | |
| | | 15.9 (5/8) | | 143 (5-5/8) | 31.4 (7,050) | 27.8 (6,260) | | | |
| | | 19.1 (3/4) | | 171 (6-3/4) | 45.1 (10,130) | 40.1 (9,010) | | | |
| | | 22.2 (7/8) | | 200 (7-7/8) | 59.2 (13,300) | 54.6 (12,265) | | | |
| | | 25.4 (1) | | 227 (9) | 86.6 (19,925) | 71.3 (16,020) | | | |
| | | 31.8 (1-1/4) | | 286 (11-1/4) | 113.6 (25,545) | 111.4 (25,035) | | | |

QPL 52
ADHESIVE ANCHOR SYSTEMS FOR DEFORMED TIE BARS & DOWEL BARS

| Product Source Code | Product | System | Source |
|----------------------------|----------------|---------------|---|
| 5268 | Pure 50+ | Injection | Powers Fasteners, Inc. 2 Powers Lane |
| 5269 | Pure 110+ | Injection | Brewster, NY 10509 |

Should you have any questions or comments about this approval, please contact Justin Morris at (225) 248-4219.

Sincerely,



Chris Abadie, P.E.
Materials Engineer Administrator

CA:jwm

cc: Francisco Gudiel
Khiet Ngo
Alton Booth
Cassandra Collins