The t’pot™ Tensile Pull Off Tester is used for evaluating the tensile strength of a substrate material or the bond strength of a repair or overlay material. Pull off testings are used on many different substrates and repair materials. The simple to use t’pot™ has a self-aligning base which can be applied on various surfaces. Always refer to the specified test method on details about dolly size, load rate and test time.

FEATURES
Most affordable pull tester capable of applying a uniform tensile force at a constant rate
1. Durable, weatherproof handheld test unit for field and lab
2. Easy-to-read dial gauge with max. hand to record max. force (pictured below: dial gauge for 2 in dolly)
3. Self-aligning base to apply loads perpendicular to substrate
4. Easy-to-interprete stroke indication pin
5. Removable magnetic hand crank
6. Variable dolly size: 2 in or 3 in
7. Safety wrist strap connector

Visit www.structuraltechnologies.com/tpot for additional product technical data and updates.
1. TEST LOCATION & CORING

Clean the surface of the test location. Remove any contaminants and debris. Core into the surface using an appropriate sized coring bit. Coring ensures the core sample is isolated from the surrounding substrate. Refer to standard test methods for specific drill depth for concrete substrates, overlay and repair surfaces.

2. ATTACH LOADING FIXTURE (DOLLY)

The dolly must have a sandblasted or roughened surface to ensure good adhesion. The dolly contains a threaded hole in the center that allows for attachment of the t’pot™. Apply adhesive epoxy on the substrate or on the flat surface of the dolly and adhere dolly to substrate. Adhesive epoxy is supplied in your t’pot™ case. Refer to the manufacturer’s instructions on specific curing time.

3. ATTACH t’pot™

The adhesive bonding the dolly to the substrate must be fully cured before attaching the t’pot™. Screw the all-thread rod on the bottom of the t’pot™ into the hole of the dolly.

4. APPLY LOAD

Position the t’pot™ so the gauge can be read easily. Ensure that the t’pot™ is in start position by turning the hand crank towards yourself (- direction). Set the red max. hand on the gauge to zero. Hold the t’pot™ firmly and turn the hand crank away from yourself (+ direction). Continue uniformly and slowly, turning 2 rotations every 10 seconds until either a failure or a maximum reading is registered. Do not proceed further. Check the reading of the dial gauge and record the force (lbf). When the measurement has been recorded, reset the stroke indication pin to zero by unwinding the hand crank towards yourself (- direction).

STROKE INDICATION PIN

The stroke indication pin specifies the applied tension on the dolly. The pin moves upwards while the hand crank is turned in the + direction. For each pull off test reset the stroke indication pin to 0 or start position by turning in the - direction.

CARRYING CASE COMPONENTS

• t’pot™
• Operating Instructions
• Certificate of Calibration
• Warranty
• Steel Test Dollies (up to 8)
• Adhesive Epoxy Cups (10)

STANDARDS

• ASTM D4541
• ASTM D7522
• ASTM D7234
• ICRI 210.3R

Pull off testing is used on many different substrates and repair materials. Always refer to the specified test method for details such as dolly size, load rate and test time.

CERTIFICATE OF CALIBRATION

The t’pot™ should be calibrated once a year. The t’pot™ comes calibrated with a Calibration Certificate in the case.

MAINTENANCE

Remove any dirt adhering to parts and wipe the surfaces of the t’pot™ with a damp cloth. Modification of the tool, or tampering with its parts, is not permissible. Void warranty. For additional information always refer to the Operating Instructions. STRUCTURAL TECHNOLOGIES gives a warranty of 24 months on this product upon date of sale. For current warranty conditions, visit our web site at www.structuraletechnologies.com/tpot.

LOAD RATE CHART

The load rate charts below show an example of a loading rate and time to maximum force for a 200 psi failure, based on ICRI loading recommendation.

Bond Strength = Force/Area

area = radius² x 3.14
2 in dia. dolly = 3.14 in² area
3 in dia. dolly = 7.06 in² area

LOAD RATE - 2 IN DOLLY *1

LOAD RATE - 3 IN DOLLY *1,2

*1 Load rates are based on the load rate of 5±2 psi/sec recommended by ICRI 210.3R. Times are based on a bond strength of 200 psi. Chart not applicable for all test methods.

*2 t’pot™ requires a separate dial gauge for pull off, bond testing only.