



## Comparative screw pull out test results: EcoStud® - vs- Steel

Date: 1 September, 2009

Test Equipment: Applied Test Systems Universal Tester, Interface 5,000 pound load cell

Test conditions: Dry, 72°F

Test set-up: Two fixed bars 2" apart, pull travel speed .050" in/min, screw mounted into unsupported substrate using portable drill, large area washer on screw to allow for test dolly attachment. Screw was pulled perpendicularly out of the specimen in the center of the two fixed bars.

### EcoStud® post industrial resin

Screw type: Coarse thread black oxide finish drywall screw

Screw shank diameter: .095" Max outside diameter: .158" Distance between flights: .158"

- 1) EcoStud - White extruded resin furring stud 119.5 pounds
- 2) EcoStud - White extruded resin furring stud 122.2 pounds
- 3) EcoStud - White extruded resin furring stud 123.7 pounds
- 4) EcoStud - White extruded resin furring stud 120.5 pounds
- 5) EcoStud - White extruded resin furring stud 118.5 pounds
- 6) EcoStud - White extruded resin furring stud 125.1 pounds

Average: EcoStud - White extruded resin furring stud 121.5 pounds

### EcoStud® post consumer resin

Screw type: Coarse thread black oxide finish drywall screw

Screw shank diameter: .095" Max outside diameter: .158" Distance between flights: .158"

- 1) EcoStud – Gray extruded resin Z furring 105.9 pounds
- 2) EcoStud – Gray extruded resin Z furring 109.1 pounds
- 3) EcoStud – Gray extruded resin Z furring 114.3 pounds
- 4) EcoStud – Gray extruded resin Z furring 110.6 pounds
- 5) EcoStud – Gray extruded resin Z furring 107.8 pounds
- 6) EcoStud – Gray extruded resin Z furring 107.7 pounds

Average: EcoStud – Gray extruded resin Z furring 109.2 pounds

### Dietrich Ultrasteel, steel stud

Fine thread black oxide finish drywall screws

Screw shank diameter: .090" Max outside diameter: .140" Distance between flights: .140"

- 1) Dietrich Ultrasteel USTN 25 Gae 0150 G40E 40KSI, steel stud 118.4 pounds
- 2) Dietrich Ultrasteel USTN 25 Gae 0150 G40E 40KSI, steel stud 117.1 pounds
- 3) Dietrich Ultrasteel USTN 25 Gae 0150 G40E 40KSI, steel stud 115.8 pounds
- 4) Dietrich Ultrasteel USTN 25 Gae 0150 G40E 40KSI, steel stud 114.2 pounds
- 5) Dietrich Ultrasteel USTN 25 Gae 0150 G40E 40KSI, steel stud 119.5 pounds
- 6) Dietrich Ultrasteel USTN 25 Gae 0150 G40E 40KSI, steel stud 117.0 pounds

Average: Dietrich Ultrasteel USTN 25 Gae 0150 G40E 40KSI, steel stud 117.0 pounds

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