

Technical Bulletin PEC 220A Pecora Fluid Applied Wall Coating & Primer Quantitative Field Test Procedure Only

Quantitative Field Test Method – ASTM D4541 Pull Off Adhesion Strength (Modified)

The purpose of this field test is to quantify the adhesive strength of a coating to determine whether the installation has been completed properly and acceptable adhesion is achieved. Release or separation during the test will occur along the weakest part of the material or bond between the material and the substrate. Poor adhesion may be caused by poor substrate preparation, partially cured coating and/or improper coating application.

The modified, quantitative field adhesion test method presented here is based on the method published in ASTM D4541 Standard Test Method for Pull Off Adhesion Strength of Coatings Using a Portable Adhesion Tester. This modified test method is approved for the following Pecora fluid applied coatings and primer:

- XL-Perm Ultra VP, XL-Perm Ultra NP
- ProPerm VP
- SilcoPrime
- WeatherClad, WeatherClad WT

Items required for modified test procedure:

- **High Strength Magnet** (min. 50lb strength) with eye bolt
- **Luggage Scale** with carabiner or locking clip (minimum 50lbs capacity)
- **1"x1" Steel Coupon** (aka test dolly); near white metal finish
- **Test Dolly Adhesive** (Pecora XL-Flash / 20oz sausage)
- **Flat Blade Caulking Knife, Razor Knife, Bulk Caulking Gun, Plastic Nozzle**



NOTE: If testing the Pecora SilcoPrime product, ensure the wall coating applied over the SilcoPrime is cured for a minimum 72hrs prior to attaching the test dollies.

TEST PROCEDURE:

1. **Locate a 6" x 6" unobstructed area to perform the adhesion test.** Testing should be completed on each type of substrate coated with a Pecora fluid applied coating.
2. **Clean the existing wall coating with a solvent wipe** (isopropyl or denatured alcohol preferred) and allow to dry.
3. **Apply a small dollop of Pecora XL-Flash** to the surface that will allow full embedment of the steel coupon. See Photo #1.
4. **Apply the steel coupon firmly into the wet XL-Flash** allowing for slight squeeze out. Immediately remove excess squeeze out. Allow for an approximately 1/8" thick film of adhesive between the substrate and coupon. See Photo #2.
5. **Allow the XL-Flash to fully cure (minimum 7 days).** Low ambient temperatures (<50F) will extend the cure time.
6. **Lightly score around the entire perimeter of the steel coupon down to substrate.** See Photo #3. If applied over an exterior grade gypsum sheathing substrate avoid cutting into the gypsum core.
7. **Attach the magnet centered on the steel coupon.**
8. **Attach the scale to eyelet and begin the test by pulling the scale at a slow and steady rate** until failure occurs or a designated minimum value is achieved. Record all values. Refer to table #1 for minimum pull off strength values per product.



Table #1 – Minimum Pull Off Adhesion Strength Values, by product

Fluid Applied Coating/s	Minimum Pull Off Adhesion Strength, PSI
XL-Perm VP XL-Perm NP ProPerm VP	16.0*
Pecora SilcoPrime w/ Exterior Coating	50.0
Pecora WeatherClad Pecora WeatherClad WT	50.0

* Minimum acceptable pull off adhesion strength per ABAA (Air Barrier Association of America)

