

Technical Bulletin on Castagra's Field Adhesion Test Method 09/16/2022

Materials required:

- *Fish/luggage scale*
- *18" or longer strip of 4" polyester mesh fabric (Tietex T272 or equivalent)*
- *Patch & Repair kit (or approximately 1/2lb of mixed Ecodur)*
- *3" or 4" chip brush*
- *Scraper*

Instructions:

1. Ensure that the test area is clean, dry, and free of surface contaminants
2. Mix Ecodur as indicated on the packaging
3. Pour out a heavy bead of mixed product onto the test area
4. Using a chip brush, spread the product evenly throughout a 6" X 12" area
5. Using a scraper, embed the 4" fabric into the center of the test area, ensuring there are no air pockets, blisters, etc.
6. Pour another bead over the fabric and use a chip brush to spread evenly
7. Weigh down the loose end to prevent blowing into the test area
8. Allow 24 hours to cure
9. After 24 hours, tie the loose end into a loop and affix it to a luggage/fish scale
10. At a 90-degree angle, pull slowly, gradually increasing pressure
11. Do not risk back injury! If pain occurs or if weight reaches over 50lbs, stop the test
12. Continue pulling until measurements have been recorded or the test strip is removed

Interpreting results:

Adhesion testing is a mode-of-failure testing method. There are 3 primary types of failure that can be expected when performing an adhesion test.

Adhesive failure (or peeling failure) is when the coating is removed with the test strip, leaving little coating on the substrate. Regardless of pull weight, this is generally considered a fail. Do not proceed without contacting Castagra for further testing requirements.

Substrate failure (failure of the surface) is when the surface the Ecodur was applied to pulls up with the test strip. This can be a pass or fail depending on the force required to destroy the substrate. A minimum of 40lbs pulling force should be met to consider the test a pass. If the substrate pulls apart below 40lbs, it may not be a suitable coatings candidate. Contact Castagra before proceeding.

Cohesive failure is when the coating remains well adhered to the substrate while the test strip is removed. The coating tears within itself leaving some on the substrate. This is generally the best result possible. Results in the 40+ lbs range are considered a pass but often will range well over 100lbs.

Not all results will be completely 1 mode or the other. For help interpreting mixed results, please send photos/videos of your adhesion test to **wecare@castagra.com**.