



Mascoat
P R O D U C T S

The Industry Leaders in Thermal Insulation Coatings

**Why Paint
And then
Insulate?**

February 5, 2010

CASE # 10.02.05-C

START REPORT

BACKGROUND

Samples of Arcor EE-80 Epoxy Coating were submitted to the Mascoat Products Laboratory for adhesion testing. The request was to check adhesion of Delta T Industrial Insulation Coating over this coating

EXPERIMENTAL PROCEDURE

The Arcor EE-80 Epoxy Coating is a two part system composed of an activator and base. The mix ratio is 2 parts base to one part activator by weight or volume. No induction time is required.

Appropriate amounts of EE-80 activator and EE-80 base were blended in a laboratory beaker. After mixing, the material was applied to solvent-cleaned galvanized panels and to a solvent-cleaned steel panel with a small brush. The panels were allowed to dry overnight.

The next morning one EE-80 coated panel was abraded with 100 grit emery cloth. The other panels were left untouched. A 20 mil wet film of Delta T Industrial Insulation Coating was applied to each panel using a draw-down type applicator. These panels were then allowed to cure 1 week at ambient temperature.

At the end of the cure period, a Cross Hatch Adhesion test was performed in accordance with D3359 Standard Test Methods for Measuring Adhesion by Tape Test.

Next, a pull off adhesion test using a Defelsko Positest AT adhesion tester was performed. 50 mm dollies were glued to the substrate using epoxy glue. The panels were allowed to dry overnight and tested in accordance with the Defelsko procedure.

LABORATORY RESULTS

The Arcor EE-80 coating dried to a slick glossy finish. It was for this reason that one of the galvanized metal panels was abraded. The result of the crosshatch adhesion tests was zero removal of the coating. The result can be seen in Figures 1 and 2 below.

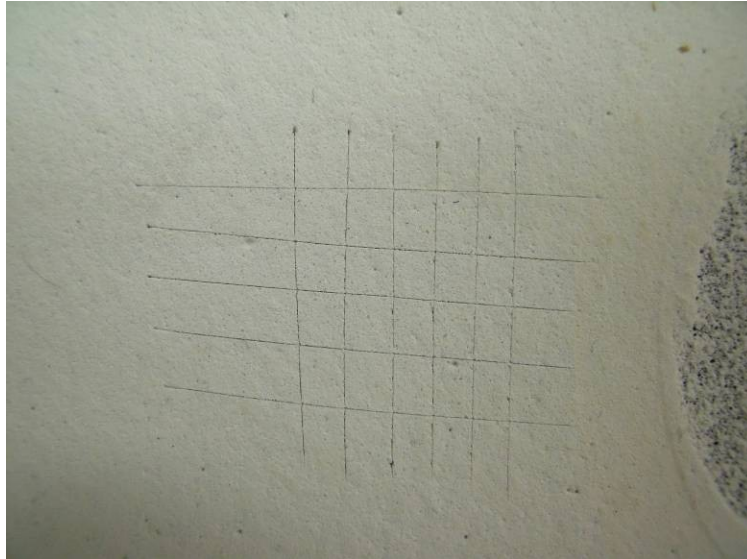


Figure 1-Steel Panel

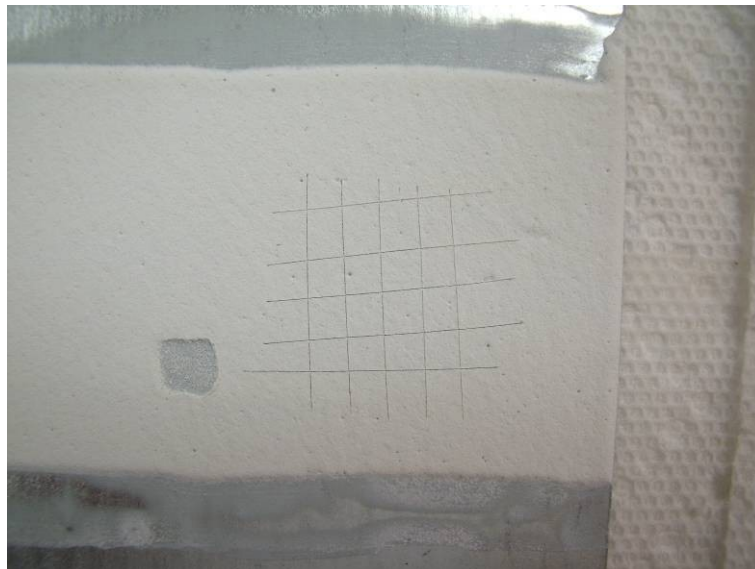


Figure 2 Galvanized panel

The results of the pull-off tests was a cohesive failure of the coating at 256-260 psi. The results of the pull-off tests can be seen in Figures 3 and 4 below. Note how the coating remained adhered to both panels after the pull-off test.

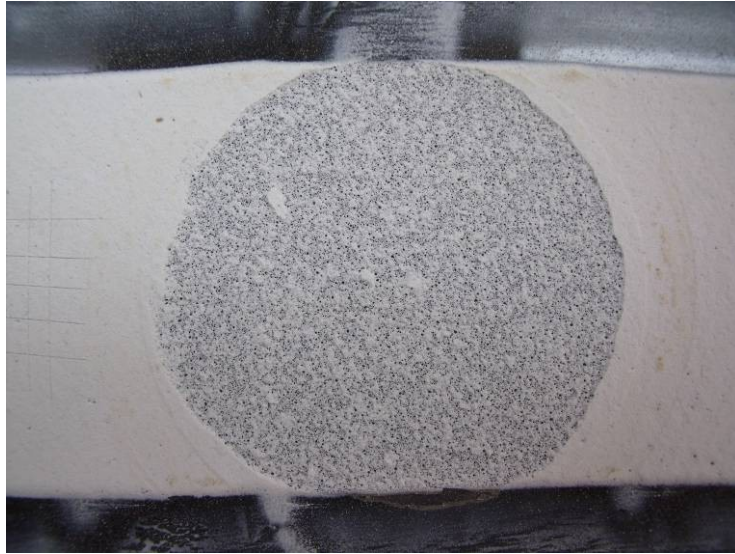


Figure 3 Steel Panel

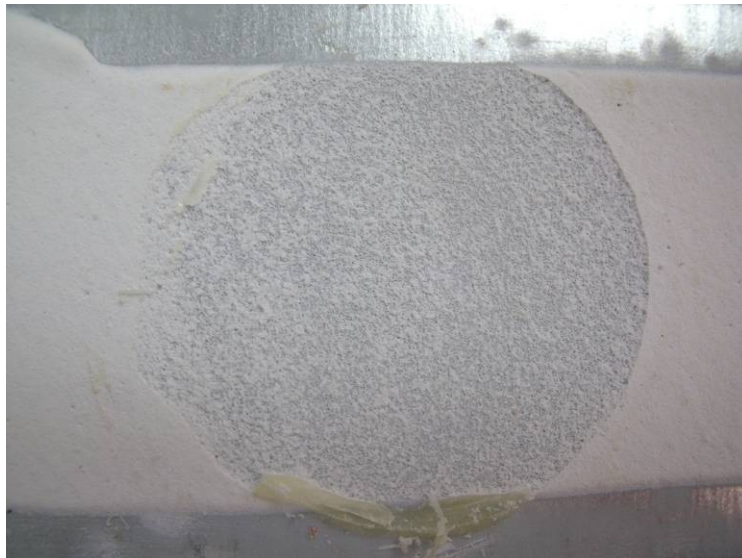


Figure 4 Galvanized Panel

FULL CONCLUSIONS

Delta T Industrial Insulation Coating demonstrated excellent adhesion to Arcor EE-80 Epoxy Coating in both Cross Hatch and Pull-off adhesion testing. The cohesive failure indicates that the coating has excellent adhesion and actually tears apart before it disbonds from the substrate.

The glossy finish of the Arcor EE-80 presented no problems for adhesion.

Arcor EE-80 is a suitable primer for Delta T Industrial Insulation Coating. Even so, it is recommended that the recoat times recommended by Arcor be strictly followed.

END REPORT