



Adhesion of EnviroTop and EnviroPrime on Laminate Countertop Material

Author: Chris Boyer
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Background: EnviroTop and EnviroPrime are white pre-catalyzed lacquer coatings designed for application to interior wood substrates. A customer inquired as to the adhesion of these products on laminate countertop material (“Formica”).

Objective: Test crosshatch adhesion of EnviroTop and EnviroPrime/EnviroTop coating system onto the laminate surface.

Experimental approach:

- Laminate material was supplied by the customer.
- Prepare the laminate surface using one of two methods:
 - Sand lightly using 180 grit paper
 - No sand
- Spray EnviroPrime onto half of the panel and let dry 30 minutes.
- Spray EnviroTop onto the entire panel and let dry 24 hours.

Result / Discussion: The area prepared by sanding and coated with a primer prior to application of the top coat exhibited an adhesion result of 5B indicating no failure of adhesion. Areas prepared by either priming or sanding, but not both, exhibited adhesion results of 2B indicating 15% - 35% of the coating delaminated from the substrate. The area that was not sanded nor primed prior to application of the top coat exhibited an adhesion result of 0B; the entire top coat film was removed during the test.

Sample ID	Primer	Sanding	Crosshatch Adhesion Result (ASTM D3359B)
A	Primed	None	2B (15% – 35% of the area affected)
B	Not Primed	None	0B (>65% of the area affected)
C	Primed	180 grit	5B (0% of the area affected)
D	Not Primed	180 grit	2B (15% – 35% of the area affected)

Conclusion: Laminate material is not the intended substrate for the EnviroPrime / EnviroTop product line. However, when prepared by sanding with 180 grit paper and priming using EnviroPrime adequate adhesion of EnviroTop is achieved.



Appendix A: Test Panel

