

CompoSecure Prelam Products versus Brand X Test Summary

Below is a summary of test results conducted at Eclipse Laboratories on 2/13/06 comparing composite cards manufactured with CompoSecure PL5, PL6 and PL5CL versus an industry standard composite card labeled Card X.

The composition of CompoSecure Cards is as follows:

CompoSecure Prelam (PL5, PL6, or PL5CL)
White PVC core stock (.018" or .020")
CompoSecure Prelam (PL5, PL6, or PL5CL)

The composition of Brand X cards is as follows:

.002" PVC Overlay
.0075" White PVC core stock
.012" Melinex PET
.0075" White PVC core stock
.002" PVC Overlay

CompoSecure Lamination Parameters: 290° F with 300 PSIA for a 22 minute hot/cold cycle.

Test Results

Test Name	PL5	PL6	PL5CL	Card X
Delamination 180°	Destructive tear at print surface	Destructive tear at print surface	Destructive tear at print surface	<ul style="list-style-type: none"> • Core layers split when torn • Print layer left intact, compromising card security
Delamination 90°	Destructive tear at print surface	Destructive tear at print surface	Destructive tear at print surface	<ul style="list-style-type: none"> • Core layers split when torn • Print layer left intact, compromising card security
Flexure	Test stopped at 100,000 flexes on both Axis A & B	Test stopped at 100,000 flexes on both Axis A & B	Test stopped at 100,000 flexes on both Axis A & B	<ul style="list-style-type: none"> • Cards failed on Axis A at 47,500 flexes • Test stopped at 100,000 flexes on Axis B
Card Structure Integrity	Card retained structure and did not separate	Card retained structure and did not separate	Card retained structure and did not separate	Corners on several samples started to separate exposing individual layers

Comments

- 1) The coefficients of expansion between PVC and PET are very different, thus creating inherent stress in a composite card. The Prelam product is a "buffered" PET, which helps to absorb the stress between the two, therefore creating a bond that withstands all severe service testing as shown above.
- 2) Prelam products in the above table show that security features are destroyed when a forger attempts to separate the layers of the card.
- 3) Cards manufactured with CompoSecure Prelam products are the most durable and secure cards commercially available.

Eclipse Laboratories Report and Test cards are available on file for review upon request.