

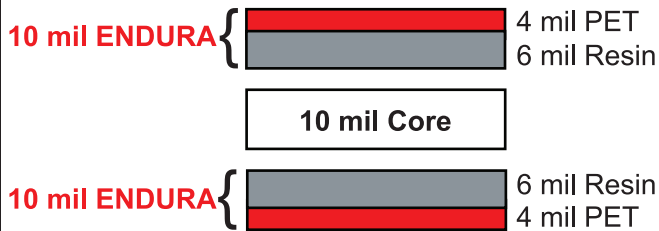


ENDURA Overlams

Product Validation Report Q61517

Product: ENDURA OVERLAMSTM

Card Side View (Magnified)



Product Description:

Thermal polyester ENDURA™ laminating film that is applied to paper or synthetic stocks using a two-sided roll laminating machine

Components:

- 10 mil (4/6) ENDURA OVERLAM™ (front)
- 10 mil Teslin® Core
- 10 mil (4/6) ENDURA OVERLAM™ (back)

Executive Summary:

“Test No. 1, card testing for Film Delaminating, indicates ENDURA OVERLAM™ card samples tested for film delaminating usage and aging performed better than Standard (non-ENDURA OVERLAM™) card samples. It is my interpretation of the data that ENDURA OVERLAM™ cards have a more durable film based upon the peel testing results.

It is my opinion that ENDURA OVERLAM™ cards have a strong core peel strength after stress and aging and are not expected to delaminate under normal use within a **5-year service life**.”

Terry Schindler
Vice President – Technology Group
Q-Card Company

Test Overview:

30 mil card test samples were manufactured using D&K Group’s ENDURA OVERLAMSTM. The cards consisted of a 10 mil synthetic (Teslin®) core laminated on both sides with 10 mil (4/6 mil) Polyester (PET) ENDURA OVERLAMSTM. Card samples were submitted to **Q-Card** to test the lamination strength and card performance.

Test Results:

ISO/IEC 24789-1: Card Testing for Usage & Aging, and Card Testing for Film Delamination:

- ISO/IEC 7810 – Card Testing for Peel: **(PASSED)**
- ISO/IEC 24789-1 – Card Testing for Flex: **(PASSED)**
- Accelerated Humidity Cycle Aging: **(PASSED)**

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