POLYESTER BLACK & IVORY NAPKIN TEST TESULTS

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In 2011, CSCNetwork partnered with the University of Kentucky, UK School of Human Environmental Sciences, and Dr. Elizabeth Easter's Textile Testing Laboratory for a second round of 100% polyester napkin testing. The laboratory provides services for the Association for Linen Management (ALM) as well as the textile, apparel, and appliances industries.

The test objectives were to determine:

1. Which supplier(s) provide the best import product that is consistent with existing supplier specifications.
2. How each import product compares against domestic market standards.

The black colored napkins were from nine suppliers and the ivory colored napkins were from seven suppliers, which are all listed below.

SUPPLIERS TESTED - BLACK NAPKINS:

American Dawn
Baltic
Calderon
Milliken (Domestic)
Pinnacle
Riegel
Standard Textile
Venus
Non Approved Supplier

SUPPLIERS TESTED - IVORY NAPKINS:

Calderon
Milliken (Domestic)
Pinnacle
Riegel
Standard Textile
Venus
Non Approved Supplier

The specific tests on the napkins determined quality, durability as well as adherence to specifications. The product suppliers enabled a comparison between imported products as well as domestic products. All of the tests performed followed ASTM or AATCC standards.

The tests included Standard Method for Breaking Strength (ASTM D 5034-95 - 2001), Dimensional Changes in Commercial Laundering of Woven and Knitted Fabrics Except Wool (AATCC 96-2009), Standard Test Method for Mass per Unit Area – Fabric weight (ASTM D 3776-96), Soil Release: Oily Stain Release Method – Modified (AATCC Test Method 130-2000), Whiteness of Textiles – Modified for Color (AATCC Test Method 110-2005), Standard Test Method for Abrasion Resistance of Textiles Fabrics- Modified Abrasion (ASTM D 4966-98). In addition to characterization of the products, the evaluations also included an assessment of performance.

Dimensional change is a generic term for changes in length or width of a fabric and/or product. The napkins were evaluated for dimensional change after 50 and 100 commercial wash/dry cycles in a Unimac 18# washer using the cycle provided by CSC Network and Ecolab commercial detergents. According to the ASTM Performance Specifications for Sheeting and Napery Fabrics, the minimum level of change should be 5 percent for table linens. All napkins met or exceeded the minimum level of performance after 50 and 100 cycles.

Color and color fastness were evaluated after 1, 50 and 100 cycles. Color was measured with and without the effect of optical brighteners, which are chemicals added to both fabrics and detergents to enhance the appearance of whites and colors. Note that under daylight light source, the loss of whiteness was detected and reported as slightly grey or blue. Individual results are available upon request.

The evaluation of soil release was conducted after 50 and 100 cycles. The soil release of lipstick was lowest for both black and ivory colored napkins, regardless of supplier. The ivory colored napkins also performed poorly when evaluating the release of mustard. The ASTM D4111 recommends a minimum specification of "4" for soil release; therefore, all napkins, regardless of supplier, failed to meet this performance specification for lipstick and the ivory napkins for lipstick and mustard.

In summary, napkins from all suppliers met or exceeded the specifications for dimensional change and breaking strength. Weight is not included in the specifications provided but all napkins were comparable.

For additional information on this, or future product testing, contact Jessica Hunter at 888-229-2575 or Jessica@networkcsc.com. CSC



For future testing interest or requests, Dr Easter can be reached at eeaster@uky.edu or by phone at 859-257-7777

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