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MicroSeal Fabric Protection

Attention: Chris Amundsen

Reference: Ultraviolet testing of MicroSeal

Dear Mr Amundsen:

Testing for ultraviolet degradation was conducted on various textiles using MicroSeal. The results of that testing is as follows:

Abstract

Swatches of colored cotton, canvas, nylon, wool and a 60% blend of polyester and cotton, were subject to both ultraviolet A and ultraviolet B light at a 40C temperature for 1000 (one-thousand hours). An evaluation was made to determine the fabric integrity and color degradation. In all cases the treated fabric swatches showed little to no fading or fabric degradation.

Testing procedure

Four inch by four inch swatches of both treated and untreated fabric were placed in a 2 foot wide by 3 foot high box. Cloth swatches were cut from the piece of corresponding fabric. 150 watt ultraviolet A and B lights were placed at the top of the box. A thermometer was inserted 2 inches from the bottom. Temperature was regulated at 40C by the top opening. Testing was conducted for 1000 (one-thousand hours). This will simulate approximately 2 years of normal wear. At the end of that time the fabrics were evaluated visibly for color degradation through comparisons with original swatches that were not subject to treatment with MicroSeal or to the Ultraviolet lighting. Additionally the Fabrics were evaluated through a microscope for fabric degradation. A rating of "excellent", "good", "fair", or "poor" was determined on how well the fabric maintained its original integrity.

Results

<u>Fabric Type</u>	<u>Results</u>
100% Cotton dark Blue Un-treated	Poor
100% Cotton dark Blue treated	Good
Canvas dark green un-treated	Poor
Canvas dark green treated	Excellent
100% wool dark green tin-treated	good
100% wool dark green treated	Excellent
60% polyester cotton blend dark green Un-treated	Good
60% polyester cotton blend dark green treated	Excellent

Conclusion

Based on the results of this test MicroSeal is effective at reducing fabric degradation from both ultraviolet A and ultraviolet B.

John E Blount Technical director Chem Tech