August 07, 2019

**Ithica Gainey**
Indiana Coated Fabrics, Inc.
102 Enterprise Drive
Warsaw, IN 46580

## Antifungal Assessment of Four Samples

**3511615**

Four window shade fabric samples, treated with Ultra-Fresh DW-30, were received from Indiana Coated Fabrics, Inc. on June 28, 2019. At Thomson Research Associates Inc., the samples were tested for resistance to mixed fungal growth using a standard test procedure.

## PROCEDURE

### Fungal Resistance Test:

**ASTM Method G-21-15** "Determining resistance of synthetic polymeric materials to fungi" was used to test the specimen. In brief, the specimen was placed onto a mineral salts agar medium and then inoculated with a mixed fungal spore inoculum consisting of the following species:

*Aspergillus brasiliensis* also known as *Aspergillus niger* (ATCC #9642)
*Aureobasidium pullulans* (ATCC #15233)
*Chaetomium globosum* (ATCC #6205)
*Talaromyces pinophilus* also known as *Penicillium funiculosum* (ATCC #11797)
*Trichoderma virens* (ATCC #9645)

The inoculated specimen is then incubated at 28C for 28 days, in order to allow adequate time for mature fungal growth to appear.

## RESULTS

| Sample Description | | | ASTM G-21-15 | | | |
|---|---|---|---|---|---|---|
| | | | 7 days | 14 days | 21 days | 28 days |
| 1 | Ultra 17oz Wideshade IV | Face | 0 | 0 | 0 | 0 |
| | | Back | 0 | 0 | 0 | 0 |
| 2 | 98" Apago'n Style I | Face | 0 | 0 | 0 | 0 |
| | | Back | 0 | 0 | 0 | 0 |
| 3 | 98" Apago'n Style III | Face | 0 | 0 | 0 | 0 |
| | | Back | 0 | 0 | 0 | 0 |
| 4 | 74" Apago'n Style IV | Face | 0 | 0 | 0 | 0 |
| | | Back | 0 | 0 | 0 | 0 |

Notes:
G 21-15 0 = specimen remained free of fungal growth.
1 = traces of growth on specimen (less than 10%).
2 = light fungal growth on specimen (10 to 30%).
3 = medium fungal growth on specimen (30 to 60%).
4 = heavy fungal growth on specimen (60% to complete coverage)

## CONCLUSION

In the ASTM G-21-15 Test, both sides of all four samples remained free of mixed fungal growth after 28 days of incubation.

**THOMSON RESEARCH ASSOCIATES INC.**

Microbiology Manager

Microbiologist