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ACT Voluntary Performance Guidelines
Coated Fabrics – Outdoor

ACT Voluntary Performance Guidelines for Flammability and four aspects of coated fabric durability—Wet & Dry Crocking, Colorfastness to Light, Physical Properties, and Abrasion—make coated fabric specification easier.

To give architects, designers, and end-users a vast amount of performance information in a succinct visual way, ACT developed icons to indicate that a fabric meets or exceeds guideline requirements. Look for these Registered Certification Marks on ACT Member Company sampling to assure that the fabrics you specify perform up to contract standards and pass all applicable testing.

ACT Guidelines are based on a fabric's construction (woven, coated, knit), its intended application (upholstery, direct glue wallcovering/adhered panels, wrapped panels/upholstered walls, drapery), and where it will be used (indoor, outdoor). The application and usage parameters are set by the fabric supplier. All three parameters determine which set of ACT Voluntary Performance Guidelines applies.

This specific set of guidelines applies to coated fabrics for outdoor use as upholstery. "Coated Fabrics" typically consist of one or more layers of a film-former polymer such as vinyl, silicone or polyurethane supported by a fabric or similar substrate.

Test methods included in the Guidelines measure coated fabric performance under standard laboratory conditions and are intended to represent the most current test version. Note: Individual ACT Member product information may represent a different version of a test method depending on the date the product was introduced to market.

Important: These tests represent minimum requirements, which are subject to change without notice and may not reflect requirements or laws in all locations. See information and disclaimer on page 5.

Flammability — COATED FABRICS, OUTDOOR USE

The measurement of a coated fabric's performance when it is exposed to specific sources of ignition.

Note: ACT guidelines specify different flammability tests dictated by the intended end use for the fabric.

ACT GUIDELINES

Upholstery

California Technical Bulletin 117-2013 Section 1 – Pass

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Wet & Dry Crocking

COATED FABRICS, OUTDOOR USE

Transfer of color from the surface of a solid or printed fabric onto another surface by rubbing.

ACT GUIDELINES

Upholstery	
AATCC 8	Dry Crocking, Grade 4 minimum
	Wet Crocking, Grade 4 minimum

Colorfastness to Light

COATED FABRICS, OUTDOOR USE

A material's degree of resistance to the fading effect of light.

ACT GUIDELINES

Upholstery – Coated Fabrics	
AATCC 169 Option 3 or Option 4	Grade 4 minimum at 650 hours*
Or	
ASTM G155 Cycle 1	Grade 4 minimum at 650 hours*
Or	
ASTM D4329 Cycle A	Grade 4 minimum at 650 hours*
Or	
ASTM G154 Cycle 1	Grade 4 minimum at 650 hours*

**Note: There is no direct correlation between the numbers of testing hours and hours of service in the field.*

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Physical Properties

COATED FABRICS, OUTDOOR USE

Key factors in assessing overall durability of a coated fabric vary depending on the coated fabrics composition and construction.

ACT GUIDELINES

Upholstery

Adhesion of Coating
ASTM D751 (Peel Adhesion), 3 lbf/in minimum.

Peel Adhesion is the measurement of the force required to separate the coatings from the substrate.

Tear Strength – Knits & Woven Substrates
ASTM D2261, 4 x 4 lbs.
Or
ASTM D751 (Tongue Tear), 4 x 4 lbs.

Tear Strength – Nonwoven Substrates & Nonwoven Composites
ASTM D5733, 15 x 15 lbs.
Or
ASTM D751 (Trap Tear), 15 x 15 lbs.

Tear Strength is the measurement of stress exerted to rip the fabric under tension.

Breaking Strength
ASTM D751 (Grab Test) – 50 x 50 lbs. minimum.

Breaking Strength is the measurement of force exerted to pull a fabric apart under tension.

Seam Strength
ASTM D751 (Tack Tear) – Woven Substrates, 25 x 25 lbs., Knit Substrates, 30 x 25 lbs., Nonwoven Substrates & Nonwoven Composites, 35 x 35 lbs.

Seam Strength is the measurement of a fabric's resistance to tearing at needle punctures in a seam.

Flex Resistance
ASTM D2097 – 25,000 cycles, Visual evaluation for no appreciable surface crazing, cracking, whitening or delamination.

Flex Resistance is the measurement of a fabric's ability to withstand repeated flexing.

Mold & Mildew/Fungal Resistance
ASTM G21, zero growth

Mold & Mildew/Fungal Resistance is the evaluation of how well synthetic materials resist fungal growth.

Hydrolysis Resistance – Applicable to Polyurethanes Only
ISO 1419 (Tropical Test Method C), 10 weeks* Visual Evaluation for no cracking, peeling or delamination

Hydrolysis Resistance is the evaluation of a polyurethane coated fabric's ability to withstand exposure to extended periods of heat and humidity.

**Note: There is no direct correlation of testing weeks to years of service in the field.*

Stretch & Set
ACT has chosen not to establish a minimum requirement for this performance characteristic since the ability of a coated fabric to return to its initial state is strongly impacted by factors that are attributed to furniture construction and fabrication such as the density of foam. The SAE J855 test can be used to evaluate the stretch and set of a coated fabric; however, ACT suggests that you consult with both your fabric supplier and furniture manufacturer to determine if there are any potential issues.

Abrasion

COATED FABRICS, OUTDOOR USE

High Traffic / Public Spaces – Coated Upholstery Fabrics

The surface wear of a coated fabric caused by friction.

ACT GUIDELINES

High Traffic / Public Spaces – Upholstery

ASTM D4157 (ACT approved #10 Cotton Duck or Wire Screen) 50,000 double rubs Wyzenbeek method

Print Retention – Applicable for Printed Upholstery

ASTM D3389 (modified to evaluate visual determination of print loss)
H-18 Wheel, 250 grams, 250 cycles Taber Tester method, Rating of 3 or higher*
*Using the ACT photographic scale of approved replicas

Disclaimer:
Abrasion test results are not necessarily a reliable indicator of fabric lifespan. Comparative laboratory testing results on the same textiles frequently differ and testing methods do not necessarily correlate well with the variables encountered in actual use by the end-user. Licensees using the ACT performance certification marks and publishing test results exceeding the ACT high-traffic abrasion guideline are required to provide the following statement on their samples, digital media, marketing materials, social media posts, direct and third-party websites:

> Abrasion test results exceeding ACT Performance Guidelines are not an indicator of product lifespan. Multiple factors affect fabric durability and appearance retention.

Notes:
ACT studies indicate that results of multiple abrasion tests performed on some fabric structures may vary significantly – as much as 60 percent or more. There is no correlation between Wyzenbeek and Martindale results. For more information please refer to abrasion white papers on the ACT website:
http://www.contracttextiles.org/learn/white-papers

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Neither the Guidelines, nor the Marks constitute any promise, representation or warranty that a product or sample that bears or to which a Mark is referenced will in fact comply with applicable federal, state, or municipal laws, codes, rules and regulations concerning the intended use of such product ("Laws"), nor any assurance, representation or guarantee regarding or relating in any manner to the safety of any product or sample that bears or, to which a Mark is referenced.

Whenever appropriate, specifiers and end users should seek the advice of professionals or other knowledgeable persons to ascertain whether a product will in fact comply with applicable Laws.

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It is the responsibility of the contract textile vendor and/or the manufacturer (not ACT) to determine in all instances whether or not a textile meets each of the Standards to which a particular Mark is referenced.

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