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ACT Voluntary Performance Guidelines
Knit Fabrics – Outdoor

ACT Voluntary Performance Guidelines for Flammability and four aspects of fabric durability—Wet & Dry Crocking, Colorfastness to Light, Physical Properties, and Abrasion—make 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 knit fabrics for outdoor use as upholstery. "Knit Fabrics" are made by interlocking loops of one or more yarns.

Test methods included in the Guidelines measure 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

KNIT FABRICS, OUTDOOR USE

The measurement of a 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

KNIT FABRICS, OUTDOOR USE

Transfer of dye from the surface of a dyed or printed fabric onto another surface by rubbing.

ACT GUIDELINES

Upholstery

AATCC 8	Dry Crocking, Grade 4 minimum Wet Crocking, Grade 3 minimum

Colorfastness to Light

KNIT FABRICS, OUTDOOR USE

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

ACT GUIDELINES

Upholstery

AATCC 169 Opt. 3 or Opt. 4	Grade 3 minimum at 1000 hours*
Or	
AATCC 16.3 Opt. 3	Grade 3 minimum at 1000 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

KNIT FABRICS, OUTDOOR USE

Key factors in assessing overall durability of a fabric vary depending on the fabric construction.

ACT GUIDELINES

Upholstery

Pilling
ASTM D3511 (Brush Pill), Class 3 minimum
Or
ASTM D4970, (Martindale Tester), Class 3 minimum

Pilling is the formation of fuzzy balls of fiber on the surface of a fabric that remain attached to the fabric.

Aesthetic issues of pilling and fuzzing that sometimes occur on textile products do not impact the durability or functionality of the material. Laboratory testing provides some insight into the propensity for a textile to pill or fuzz; however, lab tests alone cannot predict field performance since they do not consider variables (e.g., care and maintenance, misuse, environment) encountered in the actual end-use application.

Breaking Strength
ASTM D5034 (Grab Test), 50 lbs. minimum both directions

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

Tear Strength
ASTM D2261, 6.0 lbs. minimum both directions

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

Snag Testing
ASTM D3939 (Mace Snag), Class 3 minimum

Snagging is the formation of yarn pulls on the surface of a fabric.

Stretch & Set
ACT has chosen not to establish a minimum requirement for this performance characteristic since the ability of a 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 knit fabric; however, ACT suggests that you consult with both your fabric supplier and furniture manufacturer to determine if there are any potential issues.

Abrasion

KNIT FABRICS, OUTDOOR USE

The surface wear of a fabric caused by friction.

Low Traffic / Private Spaces – Knit Upholstery Fabrics

High Traffic / Public Spaces – Knit Upholstery Fabrics

ACT GUIDELINES

Low Traffic / Private Spaces – Upholstery

ASTM D4157 (ACT approved #10 Cotton Duck) 15,000 double rubs Wyzenbeek method
ASTM D4966 (12 KPa pressure) 20,000 cycles Martindale method

High Traffic / Public Spaces – Upholstery

ASTM D4157 (ACT approved #10 Cotton Duck) 30,000 double rubs Wyzenbeek method
ASTM D4966 (12 KPa pressure) 40,000 cycles Martindale method

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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