


PERFORMANCE UPHOLSTERY

KnollTextiles offers a variety of upholstery fabrics suitable for demanding environments. These fabrics have specific properties or characteristics qualifying them for performance use. Performance attributes may be inherent to the fiber or added to the fabric with a variety of finishing technologies applied during or after the production process.








This document defines performance criteria for upholstery fabrics and offers a comparison of fibers and stocked finishes. Please see the Performance Finishes document for information on KnollTextiles' aftermarket finishing options.

When considering performance products always qualify the end use and the expectations of the environment. For example, is bleach cleaning necessary? Will the upholstery be exposed to direct sunlight? Is it vulnerable to liquids and spills?





To assist in choosing the most appropriate upholsteries, KnollTextiles offers an online advanced search function that filters search results by specific performance criteria. Items marked in this document with a magnifying glass are advanced search filters found on knolltextiles.com 

DEFINITIONS

The Association of Contract Textiles (ACT) defines performance by the following characteristics:

- Flammability**  Measurement of a fabric's performance when exposed to specific sources of ignition. 
- Colorfastness**  A material's degree of resistance to the fading effect of light.
- Wet and dry crocking**  The transfer of dye from the surface of a dyed or printed fabric onto another surface by rubbing.
- Physical Properties**  Key factors in assessing overall durability of fabric vary depending on the fabric construction.
- Abrasion**  The surface wear of a fabric caused by rubbing and contact with another fabric. 

At KnollTextiles, we also consider:

- Bleach Cleanability** Fabric that does not weaken or fade when exposed to bleach. 
- Stain Resistance** The textile's ability to withstand discoloration caused by contact with liquids, including oil and grease, and/or solid surfaces. 
- Moisture Resistance** The textile's ability to remain dry when exposed to liquid. Usually, this refers to protective barrier finish applied to a fabric that does not allow a liquid to pass through. 
- Microbial Resistance** Chemical treatment applied to a fabric to combat growth of disease-causing microbes, general bacteria, infectious diseases, and various targeted organisms. Antimicrobials also prevent the growth of fungi – including reducing damage to products from mildew producing fungi. 

FIBERS AND COATED FABRIC

Natural and synthetic fabrics may have inherent characteristics which improve the performance of a textile. Finishing treatments can add new performance characteristics when they are not inherently present. Performance finishes are commonly added during or after the production of a fabric to make them better suited for a specific end use.

Bleach Cleanable Polyester	When a polyester fiber is heated at a high temperature it forces the molecule to open and encapsulate the dye stuff. This process enables the dye to have high colorfastness and be resistant to many chemicals such as bleach. 🔍
Solution Dying	A method of dyeing fiber where the pigment is added into the spinning solution/polymer before it is forced through the spinneret, dispersing the color evenly throughout the fiber and producing excellent colorfastness and consistency. Acrylic, nylon & polyethylene can be solution dyed. 🔍
Olefin	A tough, light, flexible synthetic resin that is solution dyed.
Bella-Dura®	A proprietary olefin blend that is solution dyed, exceptionally durable (50,000 double rubs minimum), inherently bleach cleanable, resistant to pilling, microbes, staining or fading (1500+ lightfast hours), resulting in remarkable textiles that are ideal for any design application – indoors or out. 🔍
Sunbrella®	Made with solution dyed acrylic fabric, the solution dyed fibers are saturated with highly UV stable pigments. These products are colorfast, fade resistant, bleach cleanable, and durable. 🔍
Vinyl 🔍	A flexible plastic made from PVC resin, various fillers and additives to manipulate softness, color and texture. PVC is used to coat one side of a knit or woven fabric backing. <ul style="list-style-type: none">• Strong durability• High Abrasion resistance• Moisture resistance• Wide range of appearances
Polyurethane 🔍	A composite material made of one or more layers of PU and a woven or non-woven textile backing. <ul style="list-style-type: none">• Strong durability• High Abrasion resistance• Moisture resistance• Microporous surface allows fabric to “breathe”

FIBERS/MATERIALS

	STAIN RESISTANT, WATER REPELLENT	MOISTURE BARRIER	BREATHABLE	BLEACH CLEANABLE	ANTIMICROBIAL
Vinyl	Yes	Yes	No	Yes	Some
Polyurethane	Yes	Yes	Yes	Some	Yes
Olefin	Yes	No	Yes	Yes	Yes
Solution Dyed Fibers	Stocked with Stain Repellent	Add-on Backing	Yes	Yes	Add-On Finish
Bleach Cleanable Polyester	Stocked with Stain Repellent	Add-on Backing	Yes	Yes	Add-On Finish
Bella-Dura	Stocked with Greenshield	Yes	Yes	Yes	Yes
Sunbrella	Stocked with Stain Repellent	Yes	Yes	Yes	Stocked with Defiance

STOCKED FINISHES

The finishes below are available stocked on select KnollTextiles upholstery fabrics. Some finishes are available as both stocked and add-on treatments. Alta is available only as an aftermarket finish. Please refer to our Performance Finishes document for additional information on aftermarket finishes.

	AVAILABLE AS ADD-ON	STAIN RESISTANT, WATER REPELLENT	MOISTURE BARRIER	BREATHABLE	BLEACH CLEANABLE	ANTIMICROBIAL
Generic Stain Repellent	Yes	Yes	No	Yes	Some	No
Nanotex	Yes	Yes	No	Yes	Some	No
Nantotex + Nanoguard	Yes	Yes	Yes	Yes	Some	No
Crypton	No	Yes	Yes	Yes	Some	Yes
Crypton Green	No	Yes	Yes	Yes	Some	Yes
Crypton Incase	No	Yes	Yes	Yes	Some	Yes
Microban	No	No	No	Yes	Some	Yes
Teflon	Yes	Yes	No	Yes	Some	No
Greenshield	No	Yes	No	Yes	Some	No
Blockaide	No	Yes	No	Yes	Some	No
Backing	Yes	No	No	Yes	N/A	No

KnollTextiles lists performance information on its sampling and online at knolltextiles.com.