Carnegie

Coated Fabrics

PRODUCT GUIDE

Forever PVC-free

Our “Forever PVC-free” promise prompts us to continually strive to offer the most performance driven and environmentally forward coated options available. Our wide variety of coated products are suitable for high-traffic environments that require the most rigorous durability and cleanability standards.

All our coated fabrics are...

PVC-free

PFAS-free

Finish-free

DMF-free

Durable (avg. 250,000+ DR)

Inherently antimicrobial

Bleach cleanable

Wipeable

Approved for hospital grade disinfectants

Healthier Hospital Compliant

Mindful Materials

Warranty: 5 - 10 years

And free of harsh chemicals:

Antimicrobials

Antimony

Bisphenol A (BPA)

Chlorine

DMF

Formaldehyde

Halogenated fire retardants

Heavy metals

Ozone-depleting chemicals

PFAS

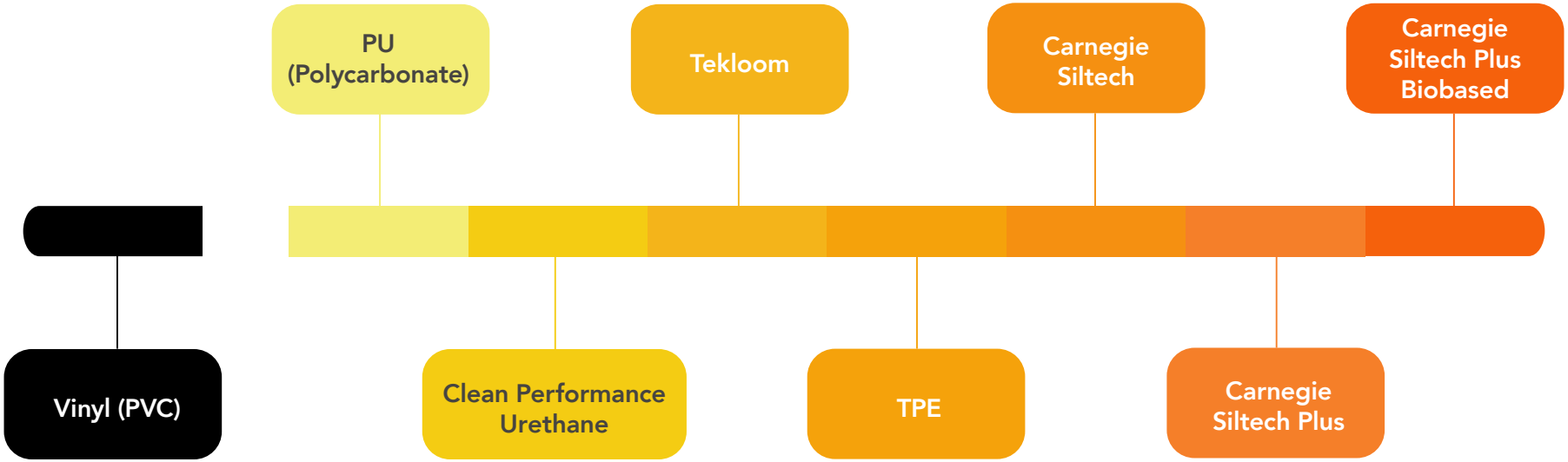
Phthalates

Plasticizers

PVC

Stain resistant finishes

Range of Coated Fabrics



Carnegie's Range of PVC-free Coated Fabrics:

- Carnegie Siltech Plus Biobased: Bio-based polyurethane made from corn starch with superior performance, durability, and cleanability.
- Carnegie Siltech Plus: Silicone with superior performance, durability, and cleanability.
- Carnegie Siltech: High performance coated fabrics made with all of the performance attributes of silicone at an affordable price.
- TPE: Cleaner chemistry, no hydrolysis issues.
- Tekloom: Woven fabric with coated performance. Superior durability.
- Clean Performance Urethane: Innovative polyurethane which uses a dry manufacturing process.
- PU (Polycarbonate): Highest grade resin for a resilient, breathable, and soft touch. Innate resistance to stains.

- Vinyl (PVC): Stiff, brittle and cheap. Made with harmful additives and toxic plasticizers.
  *The New York Times warns readers about the dangers of PVC.

Polycarbonate Polyurethanes

Not all polyurethanes are created equal. Rest easy knowing that all of Carnegie's polyurethanes are made from the highest quality of resin, which translates to performance and longevity in the field.

VIEW ALL PRODUCTS

KEY FEATURES

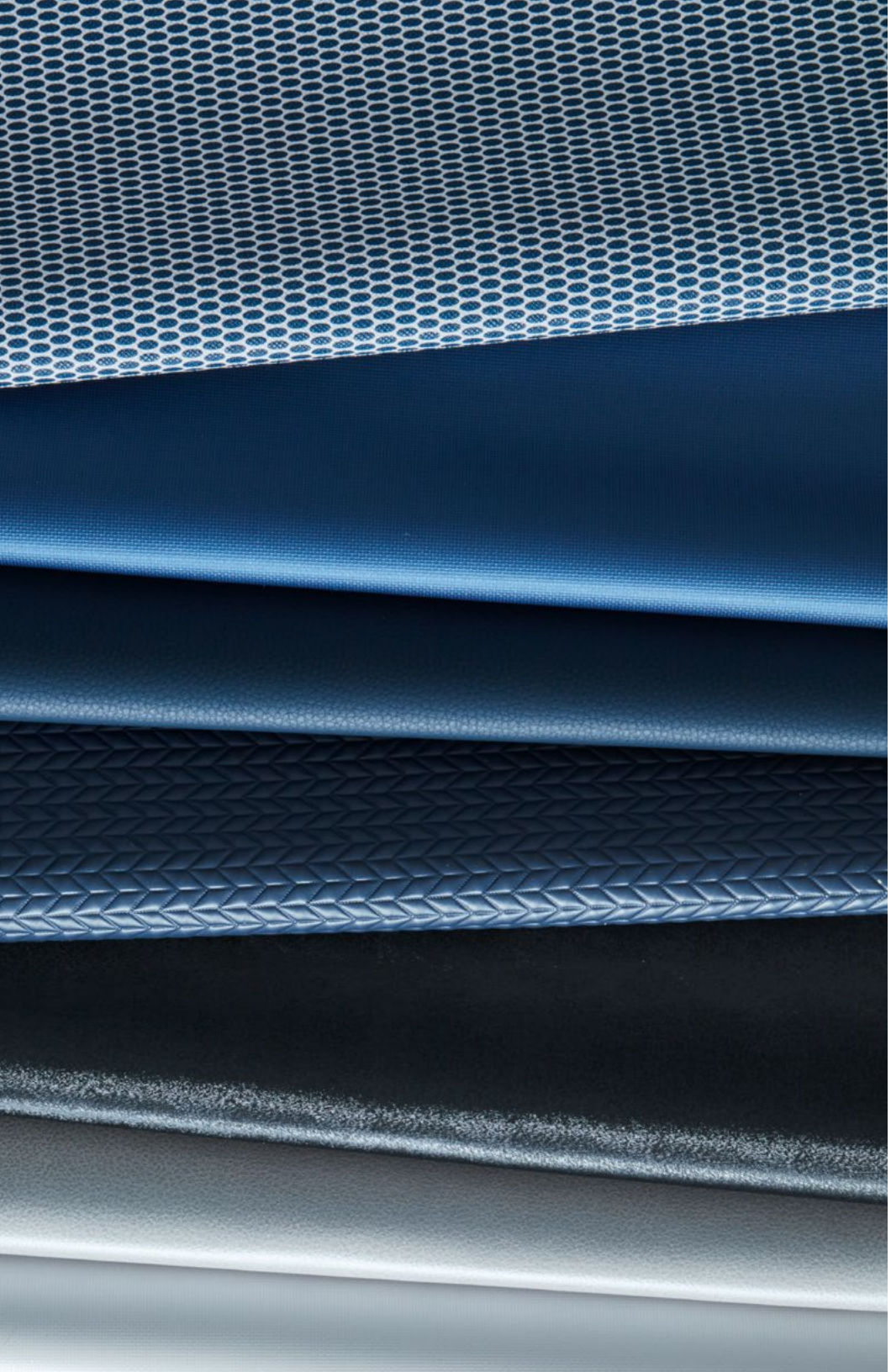
100% PVC-free

Breathable

Superior cleanability

Superior hydrolysis

Superior abrasion



Polycarbonate Polyurethanes

Are there different kinds of Polyurethanes?

Carnegie's Polyurethane coated fabrics are made from only the highest quality resin available, known as Polycarbonate Polyurethanes. More durable with a higher resistance to humidity and a greater hydrolysis rating, it outperforms the other polyurethanes on the market.

PU Polymer Resin

PU resins are a soft polymer.
Quality of resin used relates to hydrolysis performance.

Polycarbonate

- High Abrasion
- High Resistance to Humidity
- Hydrolysis 7-15 Weeks

Polyether

- Avg Abrasion
- Avg Resistance to Humidity
- Hydrolysis 3-5 Weeks

Polyester

- Low Abrasion
- Low Resistance to Humidity
- Hydrolysis 1-2 Weeks

Clean Performance Urethane (CPU)

An innovative polyurethane which uses a dry manufacturing process, eliminating the middle layer used in conventional wet manufacturing. Free of hazardous solvents or water in the production, the process to manufacture CPUs is an environmental advancement.

VIEW ALL PRODUCTS

KEY FEATURES

100% PVC-free

Breathable

Superior cleanability

Superior hydrolysis

Superior abrasion

Clean Performance Urethane (CPU)

An Environmental Advacement

Carnegie's Clean Performance Urethane (CPU) coated fabrics utilize a new process to make the middle foam layer without requiring any added DMF solvents. Conventionally, the middle layer of a coated fabric was made with a 'wet method', a process known for having quality issues and added chemicals such as DMF type solvents for processing. CPUs do not undergo this traditional 'wet method' and uses zero water, resulting in an environmental manufacturing process that not only saves water but also does not contaminate any water resource.

CPU Performance

Approved for hospital grade cleaners
Inherently antimicrobial
Minimum 100k double rubs wyzenbeek
Extremely low VOCs
Minimum 10 week hydrolysis
Inherently flame resistant
Minimum 5-year warranty

Tekloom

If you think it's woven, but it's not—it might be Tekloom. Get the look and feel of a woven textile with the performance, durability, and cleanability of a coated fabric.

VIEW ALL PRODUCTS

KEY FEATURES

100% PVC-free

Superior cleanability

Superior hydrolysis

Superior abrasion

Pen + ink resistant

Tekloom

Pen & Ink Resistant

Tekloom products are a result of a brand new technology that fuses the look of a woven with the performance of a coated fabric. Our Tekloom products are also both ink and stain resistant.

Tekloom Performance

Ink + stain resistant
Approved for hospital grade cleaners
Inherently antimicrobial
1 million double rubs wyzenbeek
Extremely low VOCs
15 week hydrolysis
Inherently flame resistant
5-year warranty
Approved for IMO use

Thermoplastic Elastomer (TPE)

The eco-conscious, new kid on the block, TPE uses innovative technology that is free of harmful substances and eliminates all hydrolysis issues.

VIEW ALL PRODUCTS

KEY FEATURES

100% PVC-free

Breathable

Superior cleanability

Superior hydrolysis

Superior abrasion

Thermoplastic Elastomer (TPE)

The Next Step in Coated Innovation

The next step in coated innovation, Thermoplastic Elastomers (TPE) are a versatile new compound that has the best of the rubber and thermoplastic worlds. It is impervious to hydrolysis and will not have the issues other low quality PUs have in the field.

TPE Performance

Approved for hospital grade cleaners
Inherently antimicrobial
HHI / Kaiser approved
Red List free
Minimum 200K double rubs wyzenbeek
Extremely low VOCs
15+ week hydrolysis
No hydrolysis or puddling issues
Inherently flame resistant
5-year warranty

Carnegie Siltech

High performance and sustainable coated upholsteries made with all of the performance attributes of silicone at an affordable price.

VIEW ALL PRODUCTS

KEY FEATURES

100% PVC-free

Breathable

Superior cleanability

Superior hydrolysis
10 weeks

Superior abrasion
100,000 double rubs

5-year warranty

Carnegie Siltech

Sophisticated Style, Affordable Price

Carnegie Siltech is a line of high-performance, sustainable coated upholstery fabrics designed as alternatives to PVC-based textiles with all of the performance of silicone. These budget-friendly fabrics offer excellent durability and aesthetics, making it suitable for high-traffic spaces and a variety of design needs.

Carnegie Siltech Performance

Approved for hospital grade cleaners
Inherently antimicrobial
Minimum 100k double rubs wyzenbeek
Extremely low VOCs
10 week hydrolysis
Inherently flame resistant
5-year warranty

Carnegie Siltech PLUS

Superior high performance coated upholsteries made with silicone recognized for extreme durability, high warranty and hydrolysis.

VIEW ALL PRODUCTS

KEY FEATURES

100% PVC-free

Breathable

Superior cleanability

Superior hydrolysis
15 weeks

Superior abrasion
200,000 - 500,000 double rubs

10-year warranty

Carnegie Siltech PLUS

The Pinnacle of Performance

Carnegie Siltech Plus is a premium line of high-performance silicone-coated upholstery fabrics. These fabrics are designed for superior durability and performance, featuring a 10-year warranty, 15-week hydrolysis, and over 200,000 double rub abrasion resistance. Ideal for high-traffic spaces, Carnegie Siltech Plus provides a robust and sustainable alternative to PVC-based textiles without sacrificing aesthetics or functionality.

Carnegie Siltech Plus Performance

Approved for hospital grade cleaners
Inherently antimicrobial
Minimum 200k double rubs wyzenbeek
Extremely low VOCs
15 week hydrolysis
Inherently flame resistant
10-year warranty

Carnegie Siltech PLUS

Bio-based polyurethane coated upholstery made with corn starch recognized for extreme durability, high warranty and hydrolysis.

VIEW ALL PRODUCTS

KEY FEATURES

100% PVC-free

Breathable

Superior cleanability

Superior hydrolysis
15 weeks

Superior abrasion
200,000 - 500,000 double rubs

10-year warranty

Carnegie Siltech PLUS

Sustainable Strength

Carnegie Siltech Plus Biobased is a next-generation bio-based polyurethane-coated upholstery made from corn starch. Engineered for unmatched durability and performance, it boasts an exceptional 10-year warranty, 15-week hydrolysis, and abrasion resistance exceeding 200,000 double rubs. Perfect for high-traffic environments, this innovative material offers a sustainable, PVC-free solution without compromising on style or functionality.

Carnegie Siltech Plus Biobased Performance

Approved for hospital grade cleaners
Inherently antimicrobial
Minimum 200k double rubs wyzenbeek
Extremely low VOCs
15 week hydrolysis
Inherently flame resistant
10-year warranty

How to choose the right coated fabric

Looking for a coated fabric? Here's how to choose the right one for you.

With so many different types of coated fabrics out there, how do you know which one is the right one for your project? We can help you with that.

Follow the links to easily select and filter to your exact parameters. Whether your priority is location, color or performance, all of our coated fabrics have been rigorously tested, thoroughly evaluated, and designed with you in mind.

LOCATION	Indoor	Indoor/Outdoor	IMO Cruise
			IMO Wheelmark
			IMO 2010 FTP Part 8 for Upholstery as Stocked
DESIGN & COLOR	Solids / Textures	Patterns	Leather Looks
PERFORMANCE	Cleanable	Performance	Environmental
	Pen & Ink Resistant	Hydrolysis	PVC-Free
	Bleach Cleanable	Breathability	Mindful Materials
	Suitable for Hospital-Grade Cleaners	Abrasion	Healthier Hospitals Initiative

Coated Fabric Matrix

	Vinyl (PVC)	Low Quality Polyurethane (PU)	High Quality Polyurethane (PU)	Clean Performance Urethane (CPU)	Thermoplastic Elastomer (TPE)	Carnegie Siltech	Carnegie Siltech Plus	Carnegie Siltech Plus Biobased	Tekloom
Description	A type of thermoplastic made from ethylene (derived from oil/gas) and chlorine (produced from industrial grade salt), applied to a base material.	A polyurethane which uses low quality Polyether or Polyester resin and is made using the conventional wet manufacturing method.	A polyurethane which uses Polycarbonate resin, the highest quality resin available, made using the conventional wet manufacturing method.	An innovative polyurethane which uses a dry manufacturing process, eliminating the middle layer used in conventional wet manufacturing.	A compound made from rubber and thermoplastic materials.	High performance and sustainable coated upholsteries made with Silicone and Polyurethane at an affordable price.	Superior high performance coated upholsteries made with silicone recognized for extreme durability, high warranty and hydrolysis.	Bio-based polyurethane coated upholstery made with corn starch recognized for extreme durability, high warranty and hydrolysis.	Woven polyester fabric chemically bonded with a TPE (Thermoplastic Elastomer) top layer.
AESTHETICS									
Price	$ - $$	$ - $$	$$ - $$$	$$ - $$$	$ - $$	$ - $$	$$ - $$$	$$ - $$$	$$$
Emboss Depth	Deep	Medium	Medium	Medium	Medium	Shallow	Shallow	Shallow	N/A
Print Options	Traditional or Digital Printing	Traditional or Digital Printing	Traditional or Digital Printing	Traditional or Digital Printing	Traditional or Digital Printing	Traditional or Digital Printing	Traditional or Digital Printing	Traditional or Digital Printing	N/A
PERFORMANCE									
Stretch	No	Low Quality PU's can puddle	No (if used with high-quality backing)	No (if used with high-quality backing)	No	No (if used with high-quality backing)	No (if used with high-quality backing)	No (if used with high-quality backing)	No
Cleanability	☆☆☆ Topcoat required	☆☆ Topcoat often required	☆☆ Topcoat often required	☆☆	☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Durability	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Hand / Seating Comfort	Firm	Soft	Soft	Soft	Soft	Soft	Soft	Soft	Medium
Breathability	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Thermal Sensitivity	Must pass cold crack	3-6 weeks Hydrolysis	7-10 weeks Hydrolysis	10-15 wees Hydrolysis	None	10 weeks Hydrolysis	15 weeks Hydrolysis	15 weeks Hydrolysis	15 weeks Hydrolysis
Warranty	1-5 years	1-5 years	5 years	5-10 years	5 years	5 years	10 years	10 years	5 years
ENVIRONMENTAL									
Fossil Fuel Efficiency	☆	☆	☆	☆☆	☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆
Production Energy Use	High	Medium	Medium	Low	Medium	High	High	High	Low
Recyclable	Yes- Beware of legacy contaminants	No	No	No	No	No	No	No	No
Plasticizers / Phthalates	Yes	None	None	None	None	None	None	None	None
Chemical Issues	Chlorine chemistry / dioxin emissions	May contain DMF (Dimethylformamide)	The best PU's are DMF-free	None (DMF-free)	None	None	None	None	None
Performance Additives	Check for flame retardant (FR), stain repellant, antimicrobial, antibacterial, or UV additives	Check for FR, stain repellant or antimicrobial additives	Check for FR, stain repellant or antimicrobial additives	Check for FR, stain repellant or antimicrobial additives	Check for FR, stain repellant or antimicrobial additives	None	None	None	None

* This matrix has been formulated using significant 3rd party testing and thorough research around coated upholstery materials. Numerous manufacturing partners have been consulted and Carnegie's own experience in sales and performance of coated materials have been taken into consideration.

☆ = Average ☆☆ = Satisfactory ☆☆☆ = Outstanding

Coated Fabrics Glossary

Abrasion
The rubbing, scraping off, or scuffing of the surface of a fabric.

Antimicrobial
The ability of a fabric to actively decrease the amount of microbes on its surface— however this does not guarantee the complete elimination of microbes. A fabric can be considered antimicrobial due to an added antimicrobial finish or the inherent properties of the cloth.

Bleach Cleanable
A fabric that has been engineered to withstand the effects of bleach when cleaned with a recommended, diluted bleach solution.

Clean Performance Urethane (CPU)
An innovative polyurethane which uses a dry manufacturing process, eliminating the middle layer used in conventional wet manufacturing.

Cleaning
The ability to remove soil and stains from the surface of a fabric, requiring the use of soap or detergent and water. While cleaning helps to remove germs from the surface, it does not kill them but does help to lower their numbers and the risk of spreading infection.

Coated Fabric
A fabric or similar substrate made with one or more layers of a film-forming polymer, chemically bonded together to create an impermeable and very cleanable surface. General term for a wide variety of different types of coated fabrics.

Colorfastness
A material's resistance to fading or running.

Denim Dye Transfer
The transfer of improperly set dyes used in the manufacturing of denim products to another surface.

Disinfectants
A cleaning agent used to kill germs on a surface. It is important to follow the label as disinfectants have varying contact times in order to be best effective—as recommended by each manufacturer. We also recommend following the rinsing protocol for each product.

Disinfecting
The method of using a recommended chemical to kill germs on the surface of a fabric. Disinfecting does not necessarily clean a dirty surface, it is important to clean a surface before disinfecting, as germs and other viruses can hide under other soils. It is important to rinse the surface with water or a clean, damp cloth to remove any residue left by cleaners or disinfectants, as harsh chemicals can be damaging to any surface if not used properly.

Dimethylformamide (DMF)
A harmful methyl-based solvent sometimes added in the production of polyurethane to make it into an emulsion state to be coated onto a material (backing), giving the fabric it's softness. All of our coated products are DMF-free, and instead use eco-friendly, ethyl-alcohol based, rather than methyl-based solvents.

Double Rub
A measurement of a fabric's resistance to abrasion, determined by the Wyzenbeek test (US) or Martindale test (EU). Each double rub is one back and forth pass over a stretched piece of fabric by a mechanical arm. The test is run until the fabric shows noticeable wear.

Emboss
A calendering process in which textiles are engraved with the use of heated rollers under pressure to produce a raised design on the fabric surface.

Flame Retardant
A fabric that resists or retards the spreading of flames. A flame retardant fabric can be made by using materials that are themselves flame retardant, or by using additional finishes.

Coated Fabrics Glossary

Hospital Grade Cleaners
A disinfectant that is registered with the Environmental Protection Agency (EPA) as a hospital-level disinfectant that performs the functions of bactericides (kill harmful bacteria), virucides (kill pathogenic viruses), and fungicides (destroy fungus).

Hydrolysis
A breakdown or delamination of the polyurethane film layer from the backing substrate in the form of cracking and peeling due to extreme heat and humidity—most often due to PUs that are formulated with inexpensive inferior resins. Also refers to the test that measures the ability of a fabric to withstand exposure to heat and humidity.

Impermeable
The inability of a liquid to pass through a material.

Jungle Test
A test to measure a fabric's ability to withstand prolonged exposure to heat and humidity (see 'Hydrolysis'). The material is subjected to relative humidity of 95% and a temperature of 70° C (158° F) for several weeks and compared to the control sample for degradation and various physical properties. Note: The number of weeks of hydrolysis testing is sometimes referred to in years (e.g. 7 Year Hydrolysis) but there is no direct correlation of testing weeks to years of service in the field.

Leather
The hide of an animal with the fur removed.

Leather-Look
A man-made simulated leather.

Lamination
The process that bonds the base fabric and the polyurethane top layer of a coated fabric together.

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

Microbe Resistant
Generally refers to a fabric that may not inhibit the growth of microbes, but also does not promote the spread of microbes. In other words, the amount of microbes does not decrease, but it does not increase either.

Moisture Barrier
A material that is impervious to water or other liquids (see Impermeable). Can also refer to a finish added after the fabric is woven.

Pen & Ink Resist
Refers to a stain inhibiting system that prevents ink, indigo denim dye, and other stains from setting into the material and allows for easy cleaning.

Polyurethane (PU)
A composite material made of one or more layers of polymer resins joined by urethane links and a woven or non-woven textile backing. Commonly referred to as 'PU', it is considered to be a highly resilient, flexible, and durable material.

Polycarbonate Polyurethane
The highest performing polyurethane resin on the market. It has a higher resistance to humidity and greater hydrolysis rating than other lesser polyurethanes. The other PU resins are Polyether (PET) and Polyester (PES).

Phthalates
A group of chemicals that are used to make plastics more durable, often referred to as plasticizers and primarily used to soften polyvinyl chloride (PVC).

Puddling
Puddling occurs because polyurethane is a soft plastic and can stretch when upholstered on a seat if not properly supported. The best way to counter this is to choose a high quality product with a backing that has memory, and will help retain the original shape of the coated fabric.

Silicone
Generic name for certain compounds obtained from silicon, a component of sand. Used in the manufacturing of coated products to impart performance properties.

Coated Fabrics Glossary

Siltech
Carnegie's collection of silicone coated fabrics.

Solvents
A class of chemical compounds—generally in liquid form—used to dissolve, suspend or extract other materials. General term for chemicals used in a wide variety of everyday applications, including the production of coated fabrics.

Stretch and Recovery
A fabric's ability to withstand repeated flexing of the material.

Tekloom
The brand name for a proprietary process where a woven textile is chemically bonded with the durable components of a coated top layer to create a fused hybrid textile.

Thermoplastic
A word used to describe fibers that are heat-sensitive. Most man-made fibers are thermoplastic, which have the property of softening or fusing when heated and of hardening again when cooled. With the application of heat and pressure, it can be molded and remolded.

Thermoplastic Elastomer (TPE)
A compound made from rubber and thermoplastic materials that consists of both thermoplastic and elastomeric properties. TPE coated fabrics are engineered to be impervious to hydrolysis issues due to their ability to stretch and return to their original shape, creating a longer life and better physical range than other materials.

Vinyl
A synthetic plastic polymer made from polymerizing vinyl chloride (PVC). Also used as the term to refer to fabrics coated with a vinyl-based coating used for such purposes as upholstery. Due to the inherent rigidity of the material, PVCs require plasticizers to soften or make it more flexible for use. These harmful plasticizers can be released during use and in vinyl manufacturing, which can be harmful to your health and the planet.

VOCs
Organic compounds that have a high vapor pressure at room temperature, potentially emitting chemicals and particles into the air that may negatively impact human health.

Wyzenbeek
A third-party certified test used predominantly in the US to measure the durability and abrasion resistance of a fabric. During this process, a piece of cotton duck is repeatedly rubbed over the test fabric using a mechanized arm. Every back and forth motion of the arm counts as one "double rub." (see Double Rub)

OUR MISSION

Galvanize the architecture and design community to build a better future with *Materials That Matter.*

Certified B Corporation

We have maintained B Corp certification since 2014, to ensure ethical and responsible business practices throughout.

PVC FREE

We are the first and only PVC-free interior textile and wallcovering company in the industry.

We provide Health Product Declarations for every single product we bring to market.

EPD®

We have a third-party verified Environmental Product Declaration (EPD) for C2C Gold Certified Biobased Xorel.

Visit www.carnegiefabrics.com or click the button to learn more:

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