



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

Stiff, brittle and cheap.  
Made with harmful additives and toxic plasticizers.

Vinyl (PVC)

The New York Times warns readers about the dangers of PVC\*.

Woven fabric with coated performance.  
Superior durability.

PU (Polycarbonate)

Highest grade resin for a resilient, breathable, and soft touch. Innate resistance to stains.

Tekloom

High performance coated fabrics made with all of the performance attributes of silicone at an affordable price.

TPE

Cleaner chemistry, no hydrolysis issues.

Carnegie Siltech

Carnegie Siltech Plus

Silicone with superior performance, durability, and cleanability.

Carnegie's Range of Coated Fabrics

\*Read "This Deadly Chemical Should Be Banned" by The New York Times [here](#).

# 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

# 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 guarantee.

[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, a 15-week hydrolysis guarantee, 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

# 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](#)



# Carnegie

## Coated Fabric Matrix

Carnegie is a PVC-Free Company

	Vinyl (PVC)	Low Quality Polyurethane (PU)	High Quality Polyurethane (PU)	Thermoplastic Elastomer (TPE)	Carnegie Siltech	Carnegie Siltech Plus	Tekloom
<b>Description</b>	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.	A compound made from rubber and thermoplastic materials.	High performance and sustainable coated upholstery made with silicone at an affordable cost.	Superior high performance coated upholstery made with silicone recognized for extreme durability, high warranty and hydrolysis guarantee.	Woven polyester fabric chemically bonded with a TPE (Thermoplastic Elastomer) top layer.
<b>AESTHETICS</b>							
<b>Price</b>	\$ - \$\$	\$ - \$\$	\$\$ - \$\$\$	\$ - \$\$	\$ - \$\$	\$\$ - \$\$\$	\$\$\$
<b>Emboss Depth</b>	Deep	Medium	Medium	Medium	Shallow	Shallow	N/A
<b>Print Options</b>	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
<b>PERFORMANCE</b>							
<b>Stretch</b>	No	Low Quality PU's can puddle	No (if used with high-quality backing)	No	No (if used with high-quality backing)	No (if used with high-quality backing)	No
<b>Cleanability</b>	☆☆☆ Topcoat required	☆☆ Topcoat often required	☆☆ Topcoat often required	☆☆	☆☆☆	☆☆☆	☆☆☆
<b>Durability</b>	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
<b>Hand / Seating Comfort</b>	Firm	Soft	Soft	Soft	Soft	Soft	Medium
<b>Breathability</b>	No	Yes	Yes	Yes	Yes	Yes	No
<b>Thermal Sensitivity</b>	Must pass cold crack	3-6 weeks Hydrolysis	7-10 weeks Hydrolysis	None	10 weeks Hydrolysis	15 weeks Hydrolysis	15 weeks Hydrolysis
<b>ENVIRONMENTAL</b>							
<b>Fossil Fuel Efficiency</b>	☆	☆	☆	☆☆	☆☆☆	☆☆☆	☆☆
<b>Production Energy Use</b>	High	Medium	Medium	Medium	High	High	Low
<b>Recyclable</b>	Yes- Beware of legacy contaminants	No	No	No	No	No	No
<b>Plasticizers / Phthalates</b>	Yes	None	None	None	None	None	None
<b>Chemical Issues</b>	Chlorine chemistry / dioxin emissions	May contain DMF (Dimethylformamide)	The best PU's are DMF-Free	None	None	None	None
<b>Performance Additives</b>	Check for flame retardant (FR), stain repellent, antimicrobial, antibacterial, or UV additives	Check for FR, stain repellent or antimicrobial additives	Check for FR, stain repellent or antimicrobial additives	Check for FR, stain repellent or antimicrobial additives	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.

## **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

(see 5. Clean Slate)

## 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.*



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



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.



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

Visit [www.carnegiefabrics.com](http://www.carnegiefabrics.com) or click the button to learn more:

LEARN MORE

Carnegie

Materials That Matter™