If you are familiar with coated upholstery fabrics, then you likely already know about the unmatched performance features of vinyl, and the unrivaled sustainability benefits of polyurethane. But what if you could combine both attributes, into a single textile? With silicone, you can! 100% silicone coated upholstery fabric is the ultimate premium performance textile—without compromise.

Designtex is pleased to include 100% silicone coated upholstery fabrics in our high-performance product line, delivering some of the safest and most durable textiles on the market, without compromising on design or performance. Offered in over 200 colors, featuring patterns, solids and textures, the wide-ranging palette can be layered, mixed, and matched to create a fresh, colorful statement.

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Performance Features

Due to its unique properties, 100% silicone fabric offers innate performance benefits without the use of topical finishes, for a textile that is reliable, hard-wearing and safe. Advantages include:

→ **Water repellency** – Silicone textiles repel water, which means they are resistant to getting wet. This protects them from spills and makes them suitable for outdoor use.

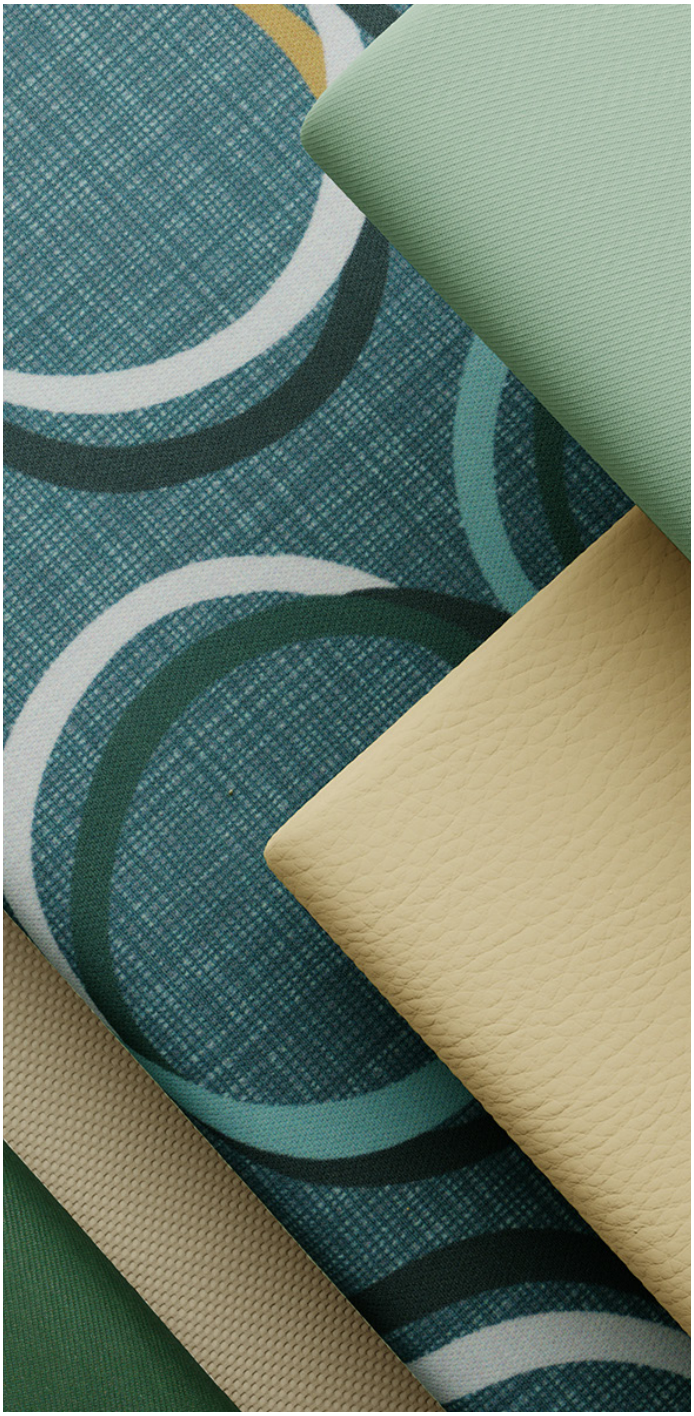
→ **Stain resistance** – Silicone textiles are less likely to absorb stains. If something spills on them, it can be easily wiped off without leaving a permanent mark.

→ **Heat resistance** – Silicone can withstand high temperatures, making it suitable for applications where heat is involved. This prevents the textile from getting damaged or melting.

→ **Durability** – Silicone textiles are known for their durability. They can withstand repeated use and maintain their quality for a long time, making them a reliable choice for various applications.

→ **Easy cleaning** – Due to their water-repellent and stain-resistant properties, silicone textiles are easy to clean. They often only require simple wiping or washing to remove dirt or spills.

→ **Breathability** – While silicone textiles repel water, they still allow air and moisture vapor to pass through. This breathability ensures comfort by reducing sweat and maintaining a balanced climate.



Outdoor Suitability

In addition to indoor use, all of Designtex's 100% silicone coated upholstery fabrics are rigorously tested for outdoor use as well, aiding in the connection to the restorative benefits of light, air and nature. Silicone has several inherent characteristics that make it an ideal choice for outdoor use, ensuring long-lasting performance and aesthetic appeal.

→ **Antibacterial, anti-fungal and mildew resistance** – Silicone does not absorb moisture, making it highly resistant to the growth of bacteria, fungi and mildew.

→ **UV resistance** – Silicone has exceptional resistance to ultraviolet radiation from the sun. This property allows it to maintain its color and structural integrity over prolonged exposure to sunlight.

→ **Temperature resistance** – Silicone can withstand extreme temperatures, from freezing cold to scorching heat, without losing its structural integrity. The unique molecular structure of silicone contributes to its ability to stay cool when it is exposed to heat and warm when it is exposed to cold.

Sustainability Benefits

Exceeding some of the world's most rigorous standards for responsible manufacturing, Designtex's 100% silicone fabrics more than meet industry requirements for non-toxic textiles, helping to make your environment as risk-free as possible. Our 100% silicone fabrics boast an unprecedented list of credentials:

- → Greenguard Gold certified
- → Healthier Hospitals compliant
- → LBC Red List compliant
- → California Prop 65 compliant
- → Mindful Materials compliant
- → HPD accountable
- → LEED contributor
- → WELL contributor
- → Low VOC
- → No Antimicrobials
- → No Flame Retardants
- → No PFAS
- → No PVC
- → Inherently Bleach Treatable
- → Inherently Disinfectant Treatable
- → Inherently Ink Resistant
- → Inherently Denim Dye Resistant
- → Inherently Stain and Soil Resistant
- → Inherently Water Repellent
- → Inherently Antibacterial
- → Inherently Anti-fungal
- → Inherently Mildew Resistant
- → Inherently Abrasion Resistant
- → Inherently Suitable for Outdoor Use

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Material Properties

Thoughtfully designed and intelligently engineered, silicone is a superior alternative to traditional coated fabrics. Made from quartz sand—a material found in abundance around the world—silicone is a product with origins in nature. It is processed into a material that is used everywhere from consumer products to medical devices.

Because the molecular structure of silicone is primarily composed of a silica-bonded inorganic chain, there is no double bond. This inherently stable chemical property allows silicone to withstand harsh environments that would deteriorate other materials.

Silicone is also immune to hydrolysis, the process by which heat, and humidity break down the structure of traditional coated materials like polyurethane, causing a flaking and brittle surface. The test for hydrolysis, ISO:1419:1995—commonly referred to as the 'jungle' test—simulates the harsh, humid environments that affect polyurethanes.

100% silicone coated upholstery fabrics successfully address some of the biggest challenges facing the use of coated fabrics today with inherent resistance to the following:

→ Hydrolysis
→ UV aging
→ Salt spray
→ Extreme temperatures
→ Cracking
→ Overall weather

Cleaning and Disinfecting

Over the last 60 years, cleaning and disinfecting protocols in commercial environments have changed dramatically. Driven by the desire to improve patient safety in hospital environments, new protocols include changes to cleaning chemicals, frequency, and procedures.

Silicone is inherently stain resistant, a property derived from silicone's low surface tension. With the exception of fluorocarbons and fluorosilicone polymers, silicone polymer surface tension is one of the lowest among all known organic polymers (as low as 20 mN/m).

Silicone is also inherently resistant to most common contaminants such as lipstick, coffee, mascara, sunscreen, denim dye, marker, ballpoint pen, mustard, tomato sauce, and red wine. Water or detergent can easily remove most stains. Our 100% silicone coated upholstery fabrics also stand up to the repeated use of harsh chemicals, including heavy duty healthcare disinfectants. Please refer to our website for individual product maintenance guidelines and approved disinfectants.

Chemical Content

There is continued scrutiny over chemicals and potentially hazardous materials in consumer products with nationwide initiatives like Healthier Hospitals and laws like Proposition 65 (CA). More harsh chemicals are used in healthcare than in any other sector and many have been shown to cause lasting negative effects on both human health and the environment.

Designtex continuously strives to reduce and eliminate any chemicals considered harmful. Our 100% silicone coated upholstery fabrics reinforce that commitment by offering robust performance in a product that is Proposition 65 and Healthier Hospitals compliant. Furthermore, our 100% silicone products do not contain antimicrobials, flame retardants, phthalates, or perfluorinated compounds (PFCs).

Product Specifications

Material Attributes	
Content	100% Silicone
Backing	Knit, Polyester
Width	54 inches (137 cm)

Performance	
Abrasion	200,000–500,000 Wyzenbeek double rubs
Adhesion	Pass
Tear Strength	Pass
Breaking Strength	Pass
Stretch & Set	Meets or exceeds SAE J856
Elongation	Meets or exceeds ASTM D751-06
Flex	All silicones exceed the minimum requirement (25,000 cycles), many exceeding well past 100,000 cycles
Puncture	ASTM D 751-06
Blocking	Pass
Seam Strength	Pass
Dynamic Seam	Pass
Seam Slippage	Pass

Cleaning	
Code	Water-based/Solvent (WS)
Bleach Treatable	Yes
Dye Transfer Resistant	Yes
Ink Resistant	Yes
Antibacterial	Pass
Stain Resistance	Yes
Approved Disinfectants*	Bleach Clorox Healthcare® Hydrogen Peroxide Cleaner Disinfectant Isopropyl Alcohol Oxivir® Tb Sani-Cloth® AF3 Germicidal Disposable Wipes Sani-Cloth® Bleach Germicidal Disposable Wipes Virex® II 256

Flammability	
	BS 5852 Crib 5
	CA TB 117-2013
	IMO FTPC 8.3.1 and 8.3.2

Colorfastness	
Lightfastness	1000–2000 hours
Wet & Dry Crocking	Pass
Perspiration	Pass
Sea Water	Pass
Chlorinated Water	Pass

Outdoor Use	
Weather Resistance	Silicone meets or exceeds voluntary standards for weather resistance (ASTM G154).
UV Stability	Silicone meets or exceeds voluntary standards for UV stability (ASTM D4329).
Cold Crack	Pass

Standards & Certifications
HPD
LEED
Greenguard Gold
LBC Red List Compliant
Healthier Hospitals
Mindful Materials
WELL
Prop 65 Compliant

Material Chemistry
No PFAS
No Antimicrobials
No Flame Retardants
No PVC
Low VOC

* This list represents the most common disinfectants.
For additional disinfectant approvals by product, please reference our website.
For specific information or additional disinfectant compatibility guidance, please contact Product Services at productservices@designtex.com.

Abrasion test results exceeding ACT Performance Guidelines are not an indicator of product lifespan.