GREENSCREEN SEA-TEX® DEFEND™

PRODUCT INFORMATION

HunterDouglas

CONTENT

INFO | **01**

SARS-CoV-2	H1N1	MSRA	VRE

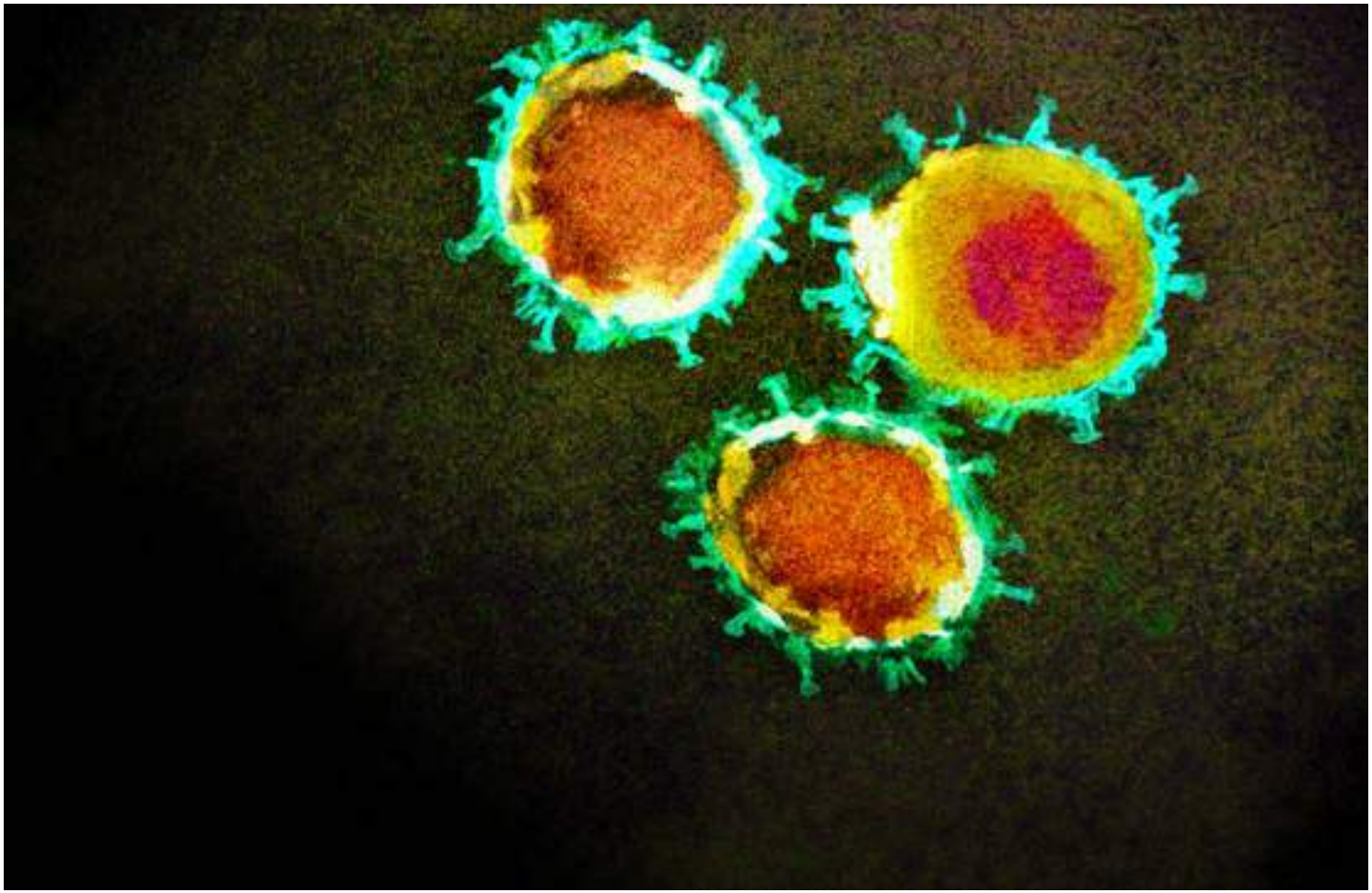


Illustration of an electron micrograph screen coronavirus mutant of SARS-CoV-2.

What makes Greenscreen Sea-Tex® Defend™ a unique fabric?

First of course, that the fabric is made with recycled plastic collected from beaches, rivershores and coastal communities.

In addition, the Sea-Tex Defend™ is equipped with a so-called antiviral and antibacterial finish.

By July 2021 more than 60 tons of shoreline plastic have been transformed into Sea-Tex fabric.

Defend™ is very effective.

The effectiveness rate of inactivation is 99% after one minute of contact with SARS-CoV-2, and >99.5% after 5 minutes.

COVID-19 is the name of the disease that SARS-CoV-2 causes.

INFO | **02**

Bacteria vs. viruses

Perhaps the most important distinction between bacteria and viruses is that antibiotic drugs usually kill bacteria, but they aren't effective against viruses. Most bacteria cause no harm to people, but there are exceptions (e.g. MRSA, VRE). Viruses are even smaller than bacteria and need to enter a living cell (such as a human cell) to be able to reproduce, and once inside they take over all of the cellular machinery and force the cell to make new virus.

What is virus inactivation?

Virus inactivation is defined as a loss of viral titer (viral load) due to disruption of coat proteins and degradation of nucleic acid.

MDRO: multidrug-resistant organism.

The discovery of penicillin in 1928 was followed by the discovery and commercial production of many other antibiotics.

Today, antibiotics are manufactured at an estimated scale of about 100,000 tons annually worldwide.

More strains of pathogens have become antibiotic resistant, and some have become resistant to many antibiotics - the phenomenon of multidrug resistance.

Greenscreen Sea-Tex® Defend™ and MRSA.

A notorious case is the *methicillin-resistant Staphylococcus aureus* (MRSA), which is resistant not only to methicillin. Such strains are also resistant to disinfectants, and MRSA can act as a major source of hospital-acquired infections.

Incidentally, the same holds true for another representative of its species: *vancomycin-resistant Enterococci* (VRE).

Greenscreen Sea-Tex® Defend™ reduces fabric surface contamination with MRSA and/or VRE at a rate of >99.5%.

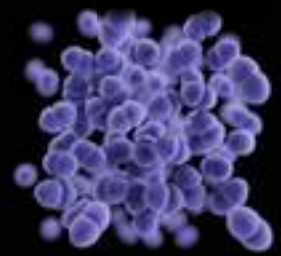
tested in accordance to ISO 20743:2013

Third-party testing laboratories and standards.

- **Influenza-A H1N1**
  - ISO18184:2019 test standard
  - MSL Microbiological Labs
- **Betacoronavirus MHV-3**
  (same genus as SARS-CoV-2, SARS-CoV-1 and MERS)
  - ISO18184:2019 test standard
  - Laboratoy of Virology, Unicamp
- **MRSA and VRE**
  - ISO20743:2013 test standard
  - MSL Microbiological Labs

MRSA

VRE



2-3%
Openness Factor

0.47mm
Thickness

250g/m²
Weight

300cm
Width

Greenscreen Sea-Tex® Defend™: Fabric Specification and Fenestration Properties

Composition	**50% recovered shoreline plastic** **50% virgin PES**

International Fire Rating Standards	**B1**	**DIN 4102 B1**	**EU** **Euroclass EN 13501-1:2007 classification: B-s1,d0**
Environmental Certifications	**OEKO-TEX®** ✓	**Greenguard Certified** ✓	**100% PVC-free** **Fully recyclable**
Sound Absorption ISO 354:2003 & ISO 11654:1997	**Alpha-W = 0.30**	**sound absorption class: D**	

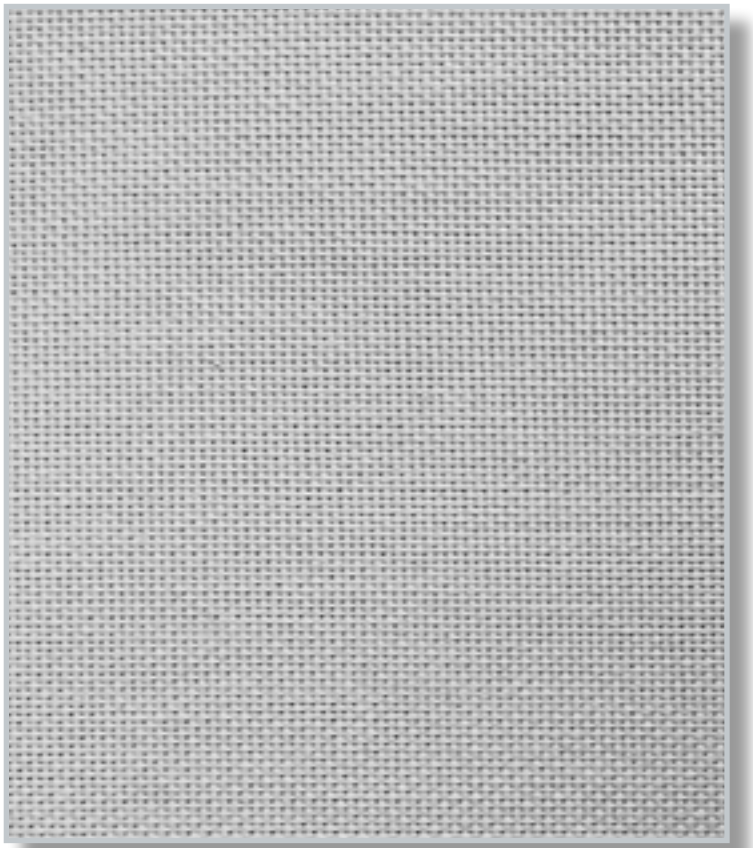
Effectivness rate of virus inactivation

ISO 18184 : 2019 Corona SARS-CoV-2	**99.5%**
ISO 18184 : 2019 Influenza A/H1N1	**92.5%**

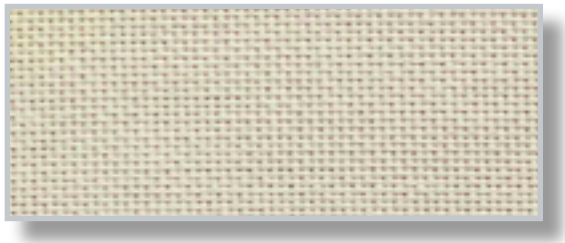
Reduction of MDR bacteria

ISO 20743 : 2013 MRSA	**99.5%**
ISO 20743 : 2013 VRE	**99.5%**

SPECS | **04**

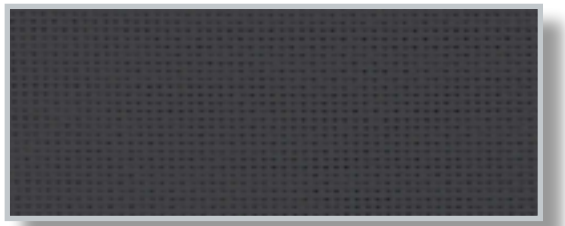


244581 1229, Haze

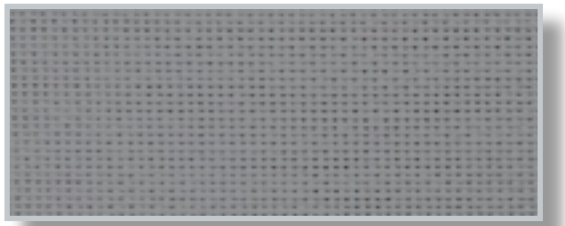


244581 0750, Sand

244581 0204, White



244581 1750, Graphite



244581 1500, Pearl

	Openness Factor / OF	Ultraviolet Transmittance / Tuv	Light Transmittance / Tv	Light Reflectance / Rv	Solar Transmittance / Ts	Solar Reflectance / Rs	Solar Absorption / As
White	2-3%	8%	31%	62%	31%	59%	10%
Sand	2-3%	5%	22%	53%	26%	55%	19%
Haze	2-3%	7%	19%	45%	26%	52%	22%
Graphite	2-3%	5%	5%	9%	19%	31%	50%
Pearl	2-3%	5%	13%	34%	23%	47%	30%

The fenestration properties were tested in accordance with EN 410 standard. All data are approximate.

GREENSCREEN SEA-TEX® | **05**

A plastic ocean.

We're surrounded by plastic. Just think about every piece we touch in a single day: grocery bags, food containers, coffee cup lids, drink bottles, straws for juice boxes — the list goes on and on. Plastic may be convenient, but its success carries a steep price.

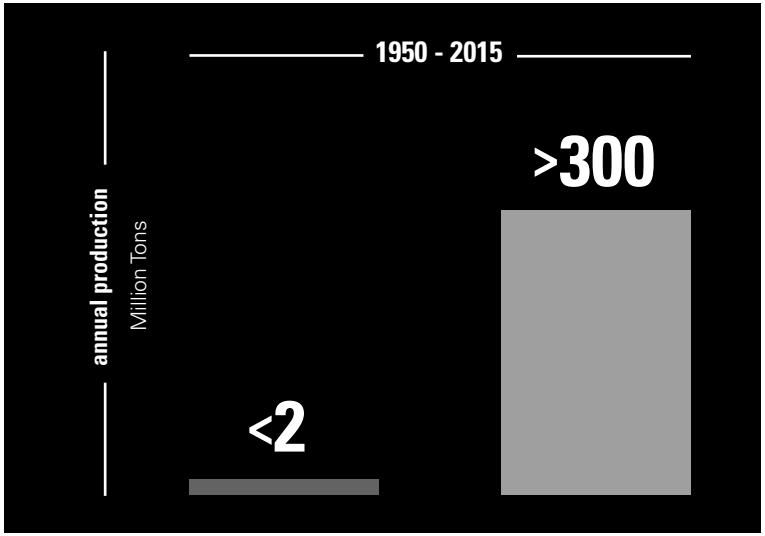
MOST OF US KNOW LITTLE OR NOTHING ABOUT THE DEVASTATION THAT OCCURS OUT THERE UNDER THE SURFACE.

Most ocean pollution starts out on land and is carried by wind, rain and rivers to the sea. Once in the water, there is a near-continuous accumulation of waste. Plastic is so durable that the US Environmental Protection Agency (EPA) reports "every bit of plastic ever made still exists."

275 MILLION METRIC TONS (MT) OF PLASTIC WASTE WAS GENERATED IN 192 COASTAL COUNTRIES IN 2010, WITH 4.8 TO 12.7 MILLION MT ENTERING THE OCEAN.

Plastics production ramped up from 1.5 Mio. t in 1950 to ~322 Mio. t in 2015. In 2015 global plastic's production grew by 3.4% compared to 2014.

GLOBAL PLASTIC PRODUCTION



GREENSCREEN SEA-TEX® | **06**

Direct action on plastic pollution.

The Greenscreen Sea-Tex® is a product program by Hunter Douglas, initated in collaboration with the material innovator Bionic® Yarn, aiming to turn recovered shoreline plastic trash into high quality fabrics.

Together with a global network of environmental organizations and governments, Bionic® develop recycling programs to collect, sort and process recovered plastics from beaches, remote coastlines, inland waterways and the surrounding local communities where plastics are commonly incinerated or landfilled.

Bionic® and their local partners operate the recycling systems they develop and sell the recovered plastics to Bionic® for a profit. The recovered plastics are used directly for Bionic® polymers. This symbiotic relationship addresses the global plastic pollution and marine debris crisis through the collection and reduction of plastic pollution sources from coastal communities, while creating jobs and stimulating the local economy.

How is Greenscreen Sea-Tex® made?

1

Collecting plastic waste from coastal locations rather than deep in the ocean is the most efficient way to clean it up and avoid damaging marine eco-systems.

2

Sorting and grouping plastic materials according to resin type is an important first step in the recycling process because contamination can render a batch of material un-reusable.

3

Plastic materials need to be cut into smaller sizes in order to allow further processing and to provide easier packaging, trans-portation of recycled stock.

4

So-called floating tanks are used to separate the material according to its density (whet-her it sinks or floats).

5

After sorting, drawing, separa-ting, and drying the reclaimed material, the flake stock is ready to be extruded into pellets.

6

The pellets are then melted, extruded and spun into Bionic® yarn for Greenscreen Sea-Tex® fabrics.

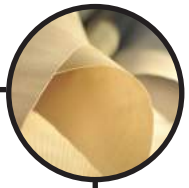
7

Weaving of Greenscreen Sea-Tex®

8

Dyeing & finishing of the fabric.

9 **Greenscreen Sea-Tex®**



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