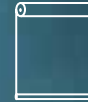




SEA-TEX™

FROM OCEAN BOUND PLASTIC TO FABRIC



ROLLER
SHADES



PANEL GLIDE
SHADES



VERTICAL
SHADES



Climate Ready®
Fabrics



SEA-TEX™

SOLAR CONTROL FABRIC

MADE WITH

**RECOVERED OCEAN BOUND
PLASTIC**

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.

In the first decade of this century, we made more plastic than all the plastic in history up to the year 2000. And every year, millions of tons of plastic end up in the world's oceans.

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."

Due to its low density, plastic waste is readily transported long distances from source areas and concentrates in gyres, systems of rotating ocean currents. All five of the Earth's major ocean gyres are inundated with plastic pollution.

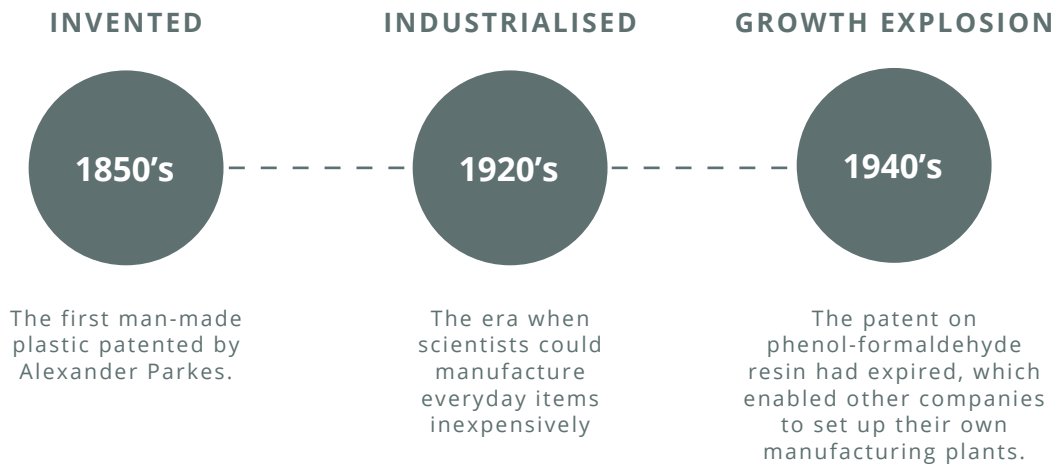
But it's not limited to the gyres; studies estimate there are more than 5 trillion pieces of plastic in the world's oceans — from the equator to the poles, from Arctic ice sheets to the sea floor. Emerging research suggests that not one square kilometer of surface ocean anywhere on earth is free of plastic pollution.



THE HISTORY OF PLASTIC

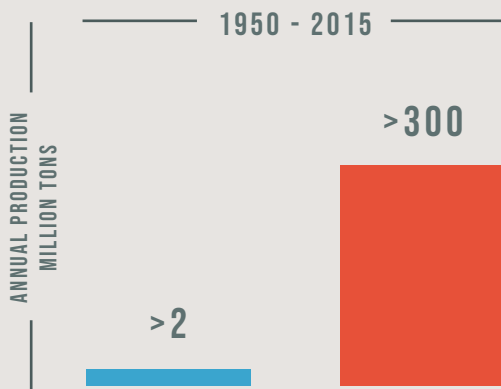
The word “plastic” was introduced in 1929. But, what is plastic, this substance that has reached so deeply into our lives?

The word comes from the Greek verb “plassein”, which means “to mold or shape.” Plastics have that capacity to be shaped thanks to their structure, those long, flexing chains of atoms or small molecules bonded in a repeating pattern into one gloriously gigantic molecule.



Plastic is versatile, lightweight, flexible, moisture resistant, strong, and relatively inexpensive. However, durable and very slow to degrade, plastic materials that are used in the production of so many products all, ultimately, become waste with staying power.

GLOBAL PLASTIC PRODUCTION



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.

Source: PlasticsEuropeMarket Research Group

OCEAN DUMPING

APPROX **9** METRIC
TONS

**PLASTIC TRASH
ENDS UP IN OUR OCEANS
EVERY YEAR**

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.

Source: Science Magazine, vol. 347, issue 6223

THE 5 GYRES

The oceans currents have formed 5 gigantic whirlpools where the plastic waste collects. A recent study conservatively estimated that 5.25 trillion plastic pieces are currently floating in the world's oceans.



This plastic debris results in an estimated \$13 billion a year in losses from damage to marine eco systems, including financial losses to fisheries and tourism as well as time spent cleaning beaches.

Animals such as seabirds, whales, and dolphins can become entangled in plastic matter, and floating plastic items—such as discarded nets, docks, and boats—can transport microbes, algae, invertebrates, and sh into non-native regions, affecting the local ecosystems.

An underwater photograph showing a large amount of plastic waste on the seabed. A white plastic bag with a green straw is circled in red. Other items include a blue plastic bag, a green and white container, and various pieces of debris. A dashed white line is drawn around the circled bag and extends upwards and to the left.

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

THE PROBLEM OF MARINE PLASTIC POLLUTION

Plastics pollution has a direct and deadly effect on wildlife. Thousands of seabirds and sea turtles, seals and other marine animals are killed each year after ingesting plastic or getting entangled in abandoned fishing nets.

Plastic pollution doesn't just hurt marine species

It's also harmful to us humans. As plastic debris floats in the seawater, it absorbs dangerous pollutants like PCBs, DDT and PAH. These chemicals are highly toxic and have a wide range of chronic effects, including endocrine disruption and cancer-causing mutations.

The concentration of PCBs in plastics floating in the ocean has been documented as 100,000 to 1 million times that of surrounding waters. When animals eat these plastic pieces, the toxins are absorbed into their body and passed up the food chain. Basically, we are what we eat, and that isn't always a good thing when the healthy-looking fish we had for dinner was full of pollutants.

6 x

IT IS ESTIMATED THAT
WE HAVE SIX TIMES MORE
PLASTIC THAN PLANKTON
IN OUR OCEANS.



A photograph of a sea turtle lying on a sandy beach, completely entangled in a complex web of discarded fishing nets. The turtle's head and front flippers are visible, but its body is obscured by the chaotic tangle of white, blue, and yellow ropes. The surrounding beach is littered with other pieces of marine debris, including a piece of white plastic and a wooden stick. The overall scene is one of environmental tragedy and marine pollution.

MARINE EXPERTS ESTIMATE THAT GHOST
NETS KILL NEARLY 1,000 SEA ANIMALS
DAILY.

GHOST NETS

Long after its initial use, lost fishing nets persists in the world's oceans, for hundreds of years. It may travel vast distances and is found in every ocean and sea on earth. These lost, or abandoned fishing nets, known ominously as "ghost nets," add to the perils for animals in the ocean.

136,000

SEALS, WHALES, TURTLES AND
DOLPHINS ARE TRAPPED EVERY
YEAR.

Every lost fishing net is a floating death trap. Hundreds of thousands of animals are killed every year by the approximately 640,000 tons of gear that are left in the world's oceans. World Animal Protection estimates entanglement in ghost nets kills at least 136,000 seals, sea lions and large whales every year. An inestimable number of birds, turtles, sh and other marine species are injured and killed too.

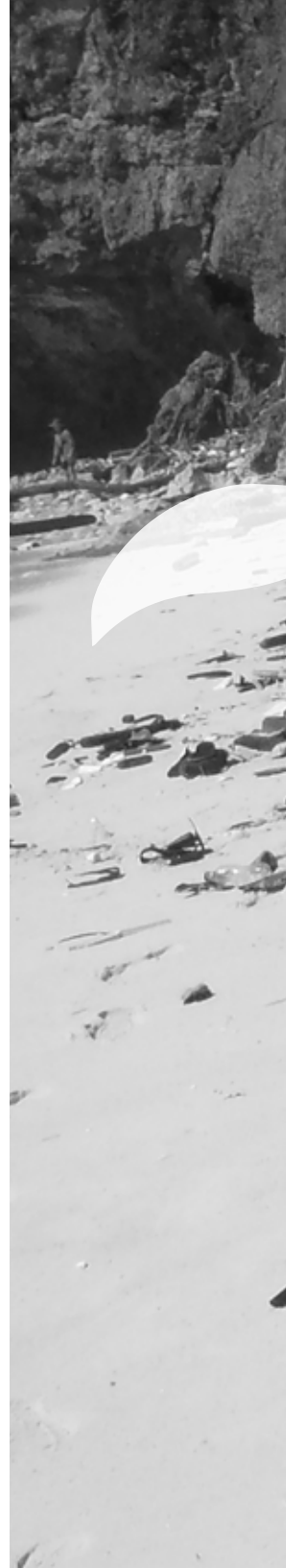


DIRECT ACTION ON PLASTIC POLLUTION

The Sea-Tex™ Project is a product program by Climate Ready® Fabrics, initiated in collaboration with the material innovator Bionic® Yarn, aiming to turn recovered shoreline plastic trash into fabrics.

Together with a global network of environmental organisations 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's 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.







PARTNERSHIP

The critical ingredient of the yarns used for Sea-Tex™ is recovered ocean bound plastic. Collecting this plastic trash is a tremendous task



An important step is Bionic's partnership with Waterkeeper® Alliance to recover plastic from coastal and marine environments. In 2016 Bionic® joined forces with Robert F. Kennedy, Jr.'s global environmental not-for-profit, Waterkeeper® Alliance.

The gold-standard in environmental protection, Waterkeeper® Alliance unites more than 300 Waterkeepers Organizations and Affiliates in 37 countries patrolling and protecting 2.4 million square miles of watershed around the globe.

In 2010, grammy award winning artist and producer Pharrell Williams became Bionic's partner. A design and fashion force in his own right, Williams stepped into and remains acting Creative Director at Bionic®.



LOCAL CHANGE

The fight to keep our rivers, oceans and waterways clean from plastic and rubbish requires a group of exceptional individuals and groups committed to such an important cause.

Waterkeeper® Alliance unites more than 300 Waterkeeper groups internationally including Australian cleanup groups protecting local waterways.

The Hawksbury River, Snowy River, Yarra River, Coorong Lakes and Murray River Waterkeeper Alliance groups are just a few of the local Australian waterways being protected..

For more information:

waterkeeper.org

Climate Ready® Fabrics and associated partners participate in annual local Australian cleanup events including the Cooks River Clean Up to help in the reduction of plastic and rubbish in our local waterways.

For more information:

info@climatereadyfabrics.com.au



**COOKS RIVER CLEAN UP IN SYDNEY
1.2 TONNES OF RUBBISH COLLECTED**



**HOW IS
SEA-TEX™
FABRIC MADE?**



1

Collecting plastic waste from coastal locations rather than deep in the oceans is the most efficient way to clean it up and avoid damaging global ecosystems



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, transportation of recycled stock.



6

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



5

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



4

Float tanks are the most common wet method, separating material based on density and whether it sinks or floats.



7

Weaving of the fabric



8


Dyeing and finishing of the fabric.



9

Sea-Tex™



A modern office interior with large windows overlooking a city. The room features wooden beams on the ceiling and walls, and a desk with a white office chair. A large teal circle is overlaid on the image, containing white text.

**HIGH PERFORMANCE
SOLAR CONTROL FABRIC
FOR ROLLER SHADES**

YES. ROLLER SHADES WITH SEA-TEX™ CAN MAKE A DIFFERENCE



50%

OF THE FABRIC WEIGHT IS
RECOVERED OCEAN BOUND
PLASTIC

125 GRAMS
SQUARE METER

ONE LARGE

COMMERCIAL PROJECT



1,000 WINDOWS

WITH AN

AVERAGE

WINDOW SIZE

3.5M2

SQUARE METERS

438KG

OF RECOVERED OCEAN
BOUND PLASTIC



IN JUST ONE
SINGLE BUILDING



YES. ROLLER SHADES WITH SEA-TEX™ CAN MAKE A DIFFERENCE

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