



SAYA

Innovating Renewal Technologies

By _____
Nan Ya Plastics

“We cannot live only for ourselves. A thousand fibers connect us with our fellow men and the other creatures that inhabit the earth; and among those fibers, as sympathetic threads, our actions run as causes, and they come back to us as effects.”

– Henry Melvill 1855



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Intro

Versatility at a Price

The global textile industry touches every culture, economy and ecosystem. Fiber, the textile industry's most basic element, is utilized at every level from protecting humans to encasing spacecraft. It's the most basic ingredient of high fashion, defines sports teams with color and logos, and transforms homes to be welcoming and comfortable. Synthetic fibers, a relatively recent addition, take it up another notch, providing us with easy care, greater durability and better performance, at a price.

When Digesting Rubbish, Bigger is Better

Ever seen empty plastic bottles bobbing in the sea? So have we, and it sickens our stomachs – much like Pinocchio did to the giant whale Monstro. That's why SAYA is the world's largest PET plastic recycler for performance fibers, repurposing over 8 billion bottles every year back into durable and functional fibers. Our 13+ manufacturing facilities throughout Asia continue to expand and refine these recycling efforts.

In 2020, **SAYA USA** established its recycled polyester fiber line in Lake City, South Carolina. It is ideal for brands looking for made-in-the-United States manufacturing with full traceability and transparency.

Another specialized recycling program, **SAYA Coastal**, targets cleanup and renewal of discarded plastic bottles in coastal areas (80% of ocean plastics originate from coastal land). It's just one more way we're helping all of Earth's creatures, Monstro big and humans small.

SAYA recycles over **8,000,000,000** single-use plastic bottles per year into functional and recyclable fibers.



The Real Heroes

Recycling post consumer content is tough work. This credit belongs to the millions of frontline individuals who have dedicated their time to cleaning up after the planet's 6 billion inhabitants. Our recycling networks are completely GRS certified, and SAYA Coastal is OceanCycle approved.



Not All Recycled Fibers are Created Equal

Pure & Safe

Contaminants and residues can easily affect the dyeability and color consistency in recycled fibers. Our proprietary, 7-stage filtration process creates the world's most chemically and physically stable recycled PET fibers. Better weaving stability and dyeing consistency means less off-grades or reruns in the dye tub. Your dye-house, production team and Earth will thank you too.

Vibrantly Bright

Our fibers also carry an industry-leading whiteness rating, leaving them as pure as the clouds replenishing our seas. Every batch is photo-spectrum tested for purity to ensure the best color reproducibility possible. Designers don't have to compromise color accuracy for sustainability. SAYA recycled fibers represent virgin accuracy the first time they are dipped, saving precious transition time and resources.

Tenacious Quality

Our proprietary renewing and spinning process guarantees performance on par with virgin petrochemical sources, ensuring the highest strength and tenacity. Strength and intrinsic viscosity are verified for every batch. Perseverance and tenacity are positive characters, and we are proud to have them in our yarns.



7-Stage Filtration Process

yields pure, bright and tenacious recycled PET fibers



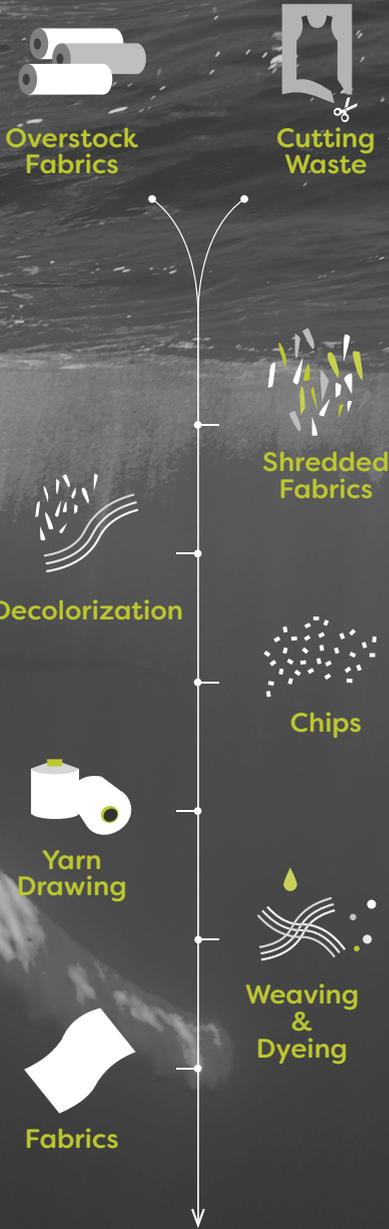
Addressing the Elephant in the Warehouse

SAYA Rscuw Project

Recycling bottles isn't the only way we're helping the planet. We're also tackling a different waste issue long plaguing the textile and garment industry. Redefining what's possible in renewal, our Rscuw Project (Recycled Scrap and Cutting Waste) recycles polyester scraps and overruns from your warehouses. Instead of throwing overstock fabric in the trash, we recycle it. Cutting scrap, an inevitable part of manufacturing, creates 25% wastage per yard; overruns amounted to a whopping 8.7 million tons in 2019. SAYA's solution: We engineered a way to renew this resource with the Rscuw Project. It's about time to take care of that whale and elephant in your room.

SAYA Garma Project

SAYA Garma is a project to develop a scalable way to deconstruct both unsold and worn garments and recycle them into usable fiber once again. Mixed fiber content and findings such as snaps, buttons and zippers compound the complexity. We are up for the challenge with our avant-garde recycling technology and artificial intelligent sorting solutions. SAYA is currently seeking like-minded brand partners to initiate pilot runs for the Garma Project. Stay tuned.



Recycling Scraps and Cutting Waste

Makers and Users, United by Transparency

Consumers want their products to comply with their greener expectations; designers want to work with more environmentally friendly textiles; and brands are balancing greenness with price and quality. All are demanding more from materials manufacturers.

Enter SAYA, which has happily invested in the R&D needed to keep our planet green. We've taken the leap toward sustainability and are proud of the results. We encourage brand designers and developers to explore the next level of renewal, beyond recycled PET bottles: SAYA Rscuw, and Garma, giving brands and consumers the opportunity to move toward a more sustainable textile industry overall. Because from whales to people and even plankton, it is indeed a small world after all — one connected, as Melvill noted, by a thousand threads.



The Road Not Taken, and Now You Can

SAYA fibers allows brands to easily convert existing designs into certified recycled materials, both in terms of development and budget friendliness. With the wide selection of fibers and filaments, there's no compromise between sustainability and development deadlines. Product developers can now easily adopt better karma without worrying about re-lab dipping, color matching, and schedule delays. Together we can make a difference.



Worldclass Manufacturing and Certifications

Just offering recycled options isn't enough, the material also has to perform. SAYA meets the highest standards for durability and performance, holding its own compared to the best virgin fibers on the market. Backed by Nan Ya Plastics, a global leader in performance fibers and the world's largest private label recycled PET manufacturer. SAYA offers economies of scale, all the certifications you need, and peace of mind without sacrificing delivery and performance.



Product Lineup

Rscuw Project	Rscuw Raw	Garma Project	SAYA 365
Cutting Scrap and Overstock Fabric	Unbleached Overstock Fabric	Used Garments	Used PET Bottles



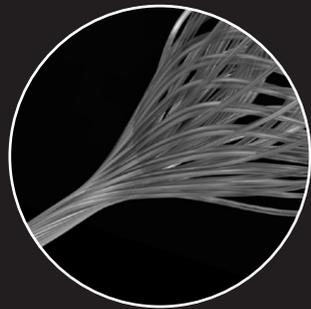
Fiber Spectrum

Item	Type	Denier	Filament	Luster
	DTY	20	12	SD
		20	18	SD
		30	36	SD
		40	72	SD
		40	72	FD
		50	36	SD
		50	48	SD
		50	72	SD
		50	72	FD
		75	48	SD
		75	36	SD
		75	72	SD
		75	72	FD
		75	72	SD
		100	36	SD
		100	96	SD
		150	48	SD
		150	96	SD
		150	144	SD
		200	48	SD
225	72	SD		
300	96	SD		
300+				
SAYA 365	FDY	15	12	SD
		20	24	SD
		30	12	SD
		30	48	SD
		40	12	SD
		40	36	SD
		50	24	SD
		50	48	SD
		50	72	SD
		75	24	BR
		75	36	SD
		75	72	SD
		100	36	SD
		100	36	BR
		150	36	BR
		150	48	SD
		150	48	BR
		225	48	BR
		300	6	SD
		300	10	SD
300	72	BR		
300	96	BR		
300+				

SAYA carries the most comprehensive polyester fiber specification in the industry.

Contact us for additional denier and filament setup not listed above.

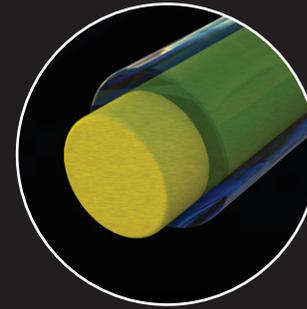
SAYA Performance Fibers



SAYA 365

Fiber Solutions for Every Task and Budget

Industry's favorite recycled PET bottle fiber. Suitable for every application and budget. SAYA 365 provides a smooth and painless transition for your sustainable movement.



CHROMUCH®

Solution Dye without Compromise

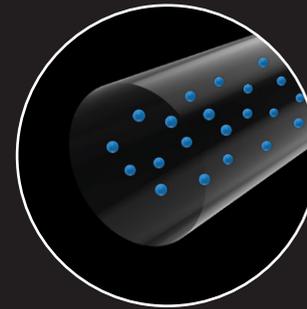
Most complete color spectrum in polyester solution dye fibers. Patented ChromShield™ yields highest saturation and vibrant colors.



Stretch

Superior Stretch for Durability and Recovery

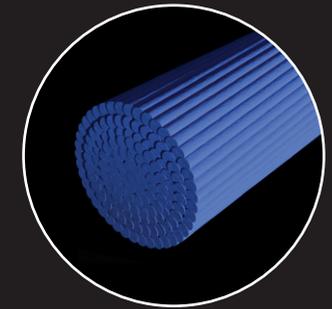
SAYA renewed, bio-based, and rubber-free stretch. Provides up to 35% stretch with superior durability and recovery.



Antibacterial

Renewed Fresh and Stays Fresh

High performance zinc oxide based antibacterial fiber. Renewed fresh and stays fresh over 50 washes.



Microfiber

Ultimate Drape and Durability

Ultra fine 0.2 dpf for ultimate drape and luxury. Starting as low as 5 deniers, and as high as 432 filaments, all from SAYA certified recycled content.

Q&A

Quality difference between virgin vs. SAYA fibers?

With SAYA's proprietary renewing and extrusion process, there is virtually no quality difference in the weaving and dyeing process or performance between virgin vs. SAYA recycled fibers.

Are SAYA Renew fibers more expensive?

SAYA 365 Fibers are competitively priced and offer better value against other recycled fibers on the market. SAYA Rscuw and Garma Projects offer avant garde sustainable technology to provide brands seeking a leading edge.

When is SAYA Renew Technology available for development?

SAYA 365:	Now
Rscuw	Spring 2021
Rscuw Raw:	Spring 2021
Garma:	Spring 2022

Is SAYA mechanically or chemically recycled?

SAYA 365:	Mechanical
Rscuw Raw:	Mechanical / Chemical
Rscuw:	Mechanical / Chemical
Garma:	Chemical

What type of fiber content is SAYA?

SAYA fibers are made of either 100% post-consumer or post-industrial recycled content.

What is the MOQ?

500kg for developments. 10,000 kg for bulk.
Select Chromuch Now colors can be ordered in MOQ's of 200 kg.



Where are SAYA fibers produced?

SAYA reclaims renewable resources from across the globe. The fibers are currently produced in our Taiwan facilities with plans to expand in Southeast Asia and the USA.

I am interested, how do I start?

Initiating a sustainable fiber project with SAYA is relatively painless and simple. We will equip you with all the necessary manufacturing and marketing support you need to transition from virgin resources.

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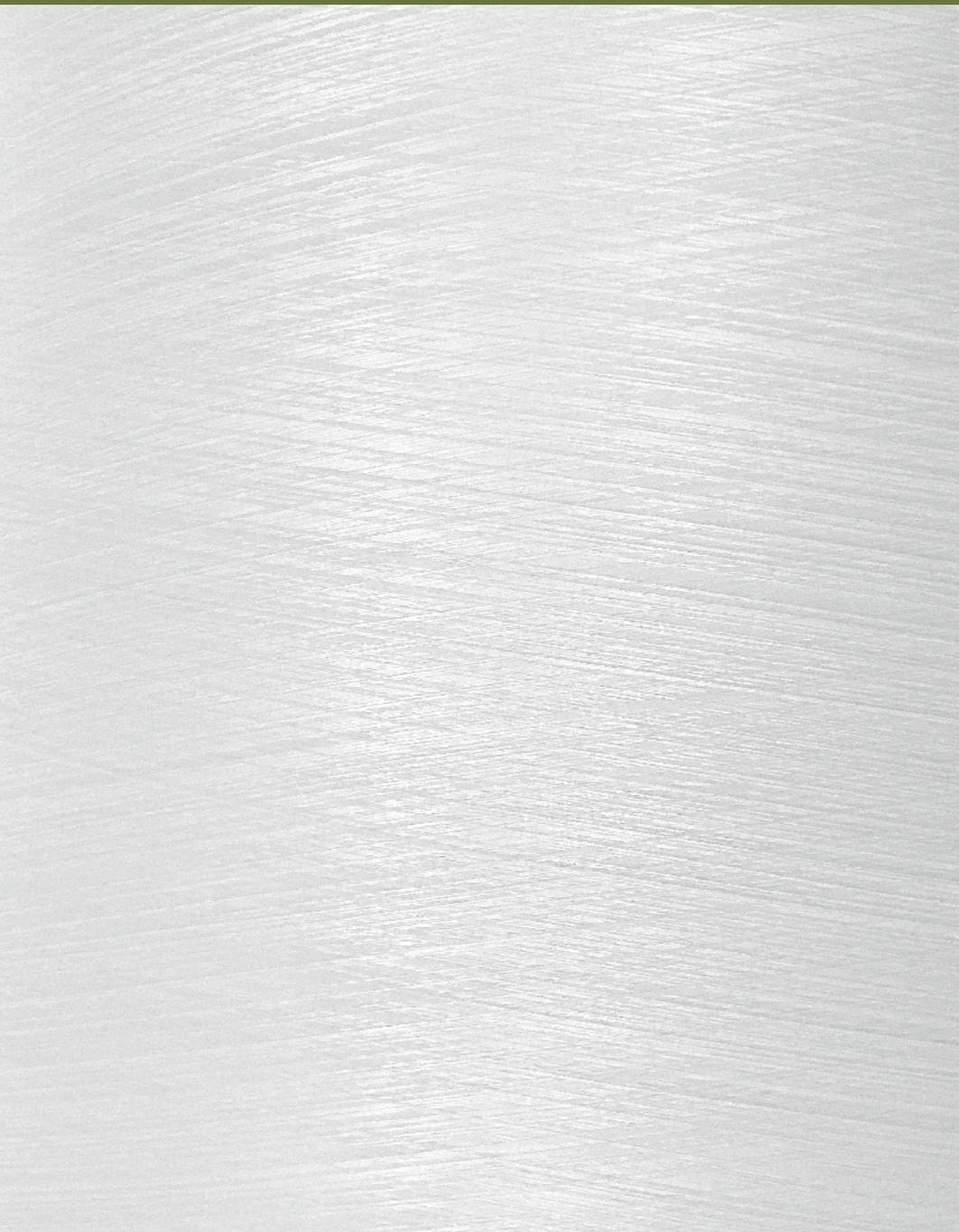
SAYA - Innovating Renewal Technologies

SAYA pronounced / say - ya /
also means the word **fiber** in Taiwanese.
This booklet briefly defines the SAYA ethos universe.



“A thousand fibers connect us...”

A note from the SAYA Team about this prologue: When we found this quote, it spoke to us immediately, and we were thrilled. We felt it captured the essence of SAYA’s mission and goals for creating a more circular, cleaner way to produce fiber. Our initial search told us the quote is attributed to Herman Melville, author of Moby Dick (1819-1891). We loved the connection between Melville’s whale, Moby Dick and real-life whales today which depend on humans to keep their ocean environment inhabitable (clean). Our further research tells us the quote should be attributed to Henry Melvill, an Anglican preacher, and the quote is from a sermon given in 1855. In the end, the quote still speaks to us, no matter who said it.



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