

Let's take action now.
Embrace sustainability without pressure or pretense.
Introducing ZERO-TEX, a futuristic material that
embodies this vision of sustainability.



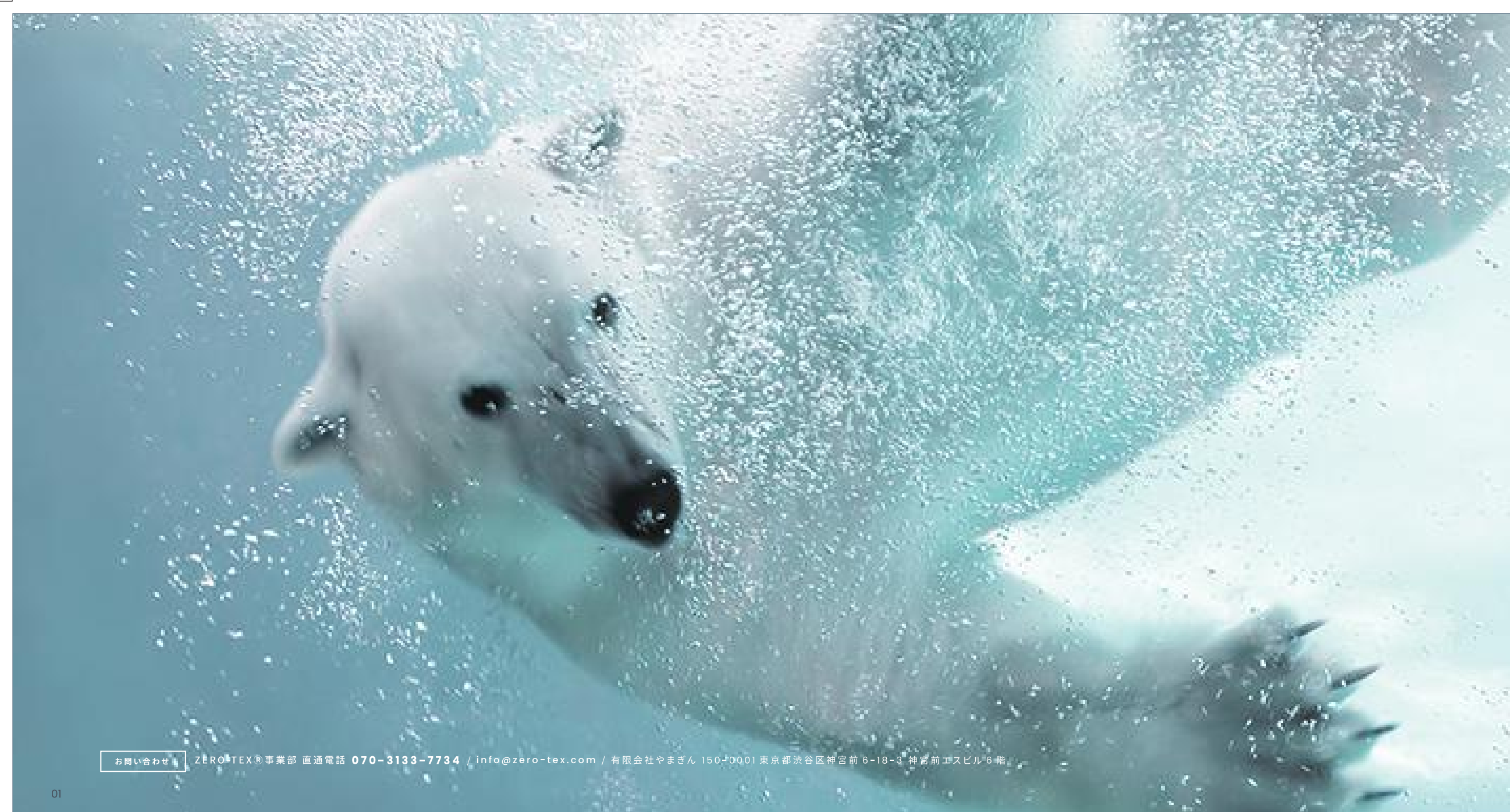
ZERO will end deceptive sustainability



ZERO-TEX®

Clean World, Bright Future





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Fundamentally Transforming The Textile Industry

Are you aware that the textile industry is considered the world's second-largest polluting industry ⁽¹⁾? It accounts for approximately 10% of global pollution emissions ⁽²⁾, surpassing even the automotive industry. At first glance, the textile industry may appear to be gradually progressing towards sustainability, but unfortunately, especially in Japan, it is mostly a facade. If the current situation persists, by 2050, more than half of the textile industry will not only fail to achieve carbon neutrality, sustainability, and the Sustainable Development Goals (SDGs), but also face the risk of collapse. The only solution to address these challenges is to achieve genuine evidence-based carbon neutrality. That's why we at Yamagin Inc., have embarked on certain initiatives. Our first objective is for our original apparel brand, ZERO-TEX[®], to manufacture products that have net-zero CO2 emissions by 2030. Additionally, we are working on creating a market where we can convert discarded apparel products into hydrogen and transform them into renewable energy. Through these initiatives, we invite you to join us in collectively advancing crucial environmental measures.



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(1) UNCTAD
(2) <https://www.un.org/sustainabledevelopment/blog/2019/08/actnow-for-zero-waste-fashion>

We are striving to create a textile industry with zero CO2 emissions using ZERO-TEX®

ZERO-TEX® is a sustainable fabric developed by Yamagin Inc in 2021, which is friendly to both people and the planet.

Originally introduced for medical gowns, its development has since evolved, reaching its third generation. One notable feature is the utilization of special spinning techniques that bring together fabric strength and sustainability. We have achieved a 52% reduction in CO2 emissions during the manufacturing process and a 70% reduction in water usage during the dyeing process (based on internal comparisons). It has gained attention as a multifunctional material suitable for everyday life, outdoor activities, medical settings, uniforms, and various other applications. For example, its "durable water repellency" ensures that its functionality remains intact even after 100 washes (verified by third-party institutions).

In the water repellency treatment process, we have made efforts to minimize environmental impact without relying on harmful water repellents, ensuring breathability while maintaining water repellency (we invite you to explore page 07 for more information on other notable features). Moreover, ZERO-TEX® is manufactured at PENFABRIC

*Yamagin inc

As a textile development manufacturer with 23 years of history, we have offices in Tokyo (headquarters), Osaka, Shanghai, and Silicon Valley. Akihide Nishikawa, the founder of Yamagin Inc., serves as the representative director. We specialize in the development of sustainable materials and aim to achieve carbon neutrality in the fashion industry and build a net-zero society with ZERO-TEX®.

SDN. BERHAD, a production facility that has obtained the highest level of safety certification worldwide ("MADE IN GREEN by OEKO-TEX®"). This ensures trust and confidence in utilizing ZERO-TEX® sustainably. In parallel with the ZERO-TEX® project, BIOTECH WORKS H² (led by CEO/Founder Akihide Nishikawa), a spin-off company from Yamagin Inc., is also establishing a platform that converts post-use apparel products into hydrogen and provides traceability and evidence. The aim is to connect production processes, end-users, companies, and hydrogen plant operators, with a future plan to facilitate direct transactions via blockchain from hydrogen plant suppliers. With these efforts, we have embarked on investments towards achieving a decarbonized society, reducing environmental impact, and decarbonizing the textile industry. We are actively promoting these initiatives through the "ZERO-TEX® Carbon Neutral Declaration," primarily through speaking engagements and book publications. While we have witnessed a growing interest and collaboration from our surroundings, addressing these challenges requires creating a larger societal wave and confrontation of environmental issues.



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Product Lineup [リヨク]

One of the significant attractions of ZERO-TEX® is its exceptional weave durability, making it highly resistant to home washing and drying. The eight integrated "powers" enhance comfort. When you have the chance to personally experience using our product, you will be amazed by the remarkable capabilities that each power provides.



Continuous water repellency

[ハッスイリヨク]

Water repellent

Representative target product codes

- ZX2101
- ZX2503
- ZX2804
- ZX2805S...



Turning resistance to dirt into a pleasurable experience

[ポウオリヨク]

Stain resistance

Representative target product codes

- ZX2101
- ZX2503
- ZX2804
- ZX2805S...



Assurance of non-transparency

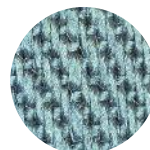
[ポウスケリヨク]

Transparency Resistance

Target product codes

- ZX2507P
- ZX2506SP

Comparative texture



ZERO-TEX®



Compared to other materials



Breathable material

[ツウキリヨク]

Breathability

Representative target product codes

- ZX2101
- ZX2503
- ZX2804
- ZX2805S...

[リヨク]

In Japanese, the word "power" conveys the meanings of advantage, strength and feature.



Suitable for hospital use, AAMI Level 2 certified

[ポウゴリヨク]

Protective

Representative target product codes

- ZX2101
- ZX2503
- ZX2804
- ZX2805S...



Protection from UV rays, UPF50+

[シャヘイリヨク]

Shielding

Representative target product codes

- ZX2101
- ZX2503
- ZX2804
- ZX2805S...



Light and comfortable to wear, felt upon wearing

[クウキリヨク]

Airiness

Target product codes

- ZX2101
- ZX2508D
- ZX2102S



Light and comfortable to wear, felt upon wearing

[シャレリヨク]

Stylishness

Target product codes

- ZX2101
- ZX2507P
- ZX2506SP
- ZX2508D

Experience the benefits of our diverse strengths

Easy care



List of Features

Each feature is outstanding, and they all maintain their performance for a relatively long time. ZERO-TEX® products are originally designed to be worn for an extended period without being discarded. They are certified by third-party organizations as authentic multi-functional materials.

Easy care



No stress. Just put it in the washing machine.

Durable water repellent



Lasts even after 100 washes. Uses non-organic fluorine water repellent.

Protection



It can also be used in medical settings. AAMI LEVEL 2

Antifouling



It is hard to get dirty, and even if it gets dirty, it can be wiped off.

Antistatic



Almost no clinging.

Cool touch



Popular all year round! Cool to the touch.

Moisture permeability



Not stuffy, not sticky, easy to move.

Pollen release



Hard to get pollen. Easy to put on and fall off.

UPF50+/UPF40



The world's highest level of UV protection

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代表的品番	ZX2101 Light	ZX2503 Middle	ZX2804 Heavy	ZX2805S Heavy with Stretch	ZX2507P See-through Prevention	ZX2506SP See-through Prevention with Stretch	ZX2508D Denim	ZX2102S Light with Stretch
認証試験								
OEKO-TEX® スタンダード 100	○	○	○	○	○	○	○	○
OEKO-TEX® ステップ	○	○	○	○	○	○	○	○
AAMI LEVEL 2	○	○	○	○	○	○	○	○
撥水度初期(級) JIS L 1092	5	5	5	5	5	5	5	5
撥水度 100 洗後(級) JIS L 1092	3	3	3	3	3	3	3	3
通気性 (cm ³ /cm ² ・s) JIS L 1096A	8.8	8.6	7.6	6.9	9.1	3.5	2.7	10.1
摩擦耐電圧測定法 綿 タテ / ヨコ 毛 タテ / ヨコ (V)	380 / 410 430 / 560	97 / 140 320 / 330	1400 / 960 2000 / 1500	370 / 400 670 / 820	560 / 450 600 / 630	-	-	-
帯電性 半減期測定法 JIS L 1094	0.88	0.8	0.77	0.84	0.88	-	30	-
花粉 B 法 (%) リリース性	70.5	87.4	83.6	90.9	78.4	87.0	96.3	97.0
接触冷感 (W/cm ²) JIS L 1927	0.183	0.153	0.167	0.143	0.136	0.173	0.139	0.158
透湿度 B-1 法 (g/m ² ・h) JIS L 1099	1757	1300	920	936	1273	1437	1049	1678
防汚性 JIS L 1919B 法 (級) 汚れにくさ / 落ちやすさ	5.0 / 5.0	4.5 / 5.0	5.0 / 5.0	4.5 / 5.0	4.5 / 5.0	4.5 / 5.0	-	-
紫外線 (%) JIS L 1925	96.9	99.1	-	-	99.7	99.3	99.2	-
紫外線防護係数	UPF50+	UPF50+	UPF50+	UPF50+	UPF50+	UPF50+	UPF50+	UPF50+
防透け性 JIS L 1923 乾燥 B 法	-	-	-	-	97.0	97.2	-	-
熱伝達 ISO 6942 B 法 下段: 処理後	-	-	RHT112:5.5 RHT124:8.4	RHT112:5.7 RHT124:8.7	-	-	-	-
耐熱性 ISO 17493	-	-	熔融、滴下、発火を認めず寸法変化率 たて -11.7% / よこ -6.3%	熔融、滴下、発火を認めず寸法変化率 たて -11.5% / よこ +4.7%	-	-	-	-
人工血液防汚性 JIS T 8060:2015 汚れにくさ / 落ちやすさ	4.0 / 5.0	-	-	-	4.0 / 5.0	-	-	-
粉体汚染物質防汚性 JIS L 1919 A-1 法 汚れにくさ / 落ちやすさ	2.5 / 4.5	-	2.5 / 4.0	-	-	-	-	-
防汚性 JIS L 1919 A-1 法 落ちやすさ ラー油 / コーヒー	-	-	-	-	4.0 / 4.5	-	-	-
海水撥水度 JIS L 0847 (級)	初期 4 級	-	-	-	-	-	-	-

Core Values of ZERO-TEX®

- 1 Sustainability: Prioritizing the environment in decision-making processes.
- 2 Function: Creating products that meet various needs.
- 3 Quality: Delivering long-lasting and durable goods.
- 4 Safety: Ensuring safety and peace of mind for many people.
- 5 Futurism: Developing products that are environmentally friendly and contribute to a better future.

お問い合わせ

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