



< Through 15 years of efforts, Aderans has successfully developed >

The third-generation functional artificial hair leveraging proprietary technologies

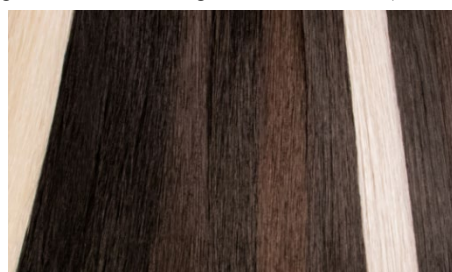
as a sustainable hair fiber with less waste

Based on joint research with Dr. Takeshi Kikutani, a world-renowned expert in fiber science and Specially Appointed Professor at Tokyo Institute of Technology

Aderans Co., Ltd. (Head Office: Shinjuku-ku, Tokyo, Japan; Group CEO, Representative Director, and President: Yoshihiro Tsumura), promoting the wellness industry of hair, beauty, and health on a global scale, has developed its latest, third-generation functional artificial hair “CYBER X” leveraging its two proprietary technologies*1.

*1 Japanese Patent No. 5518857 and No. 7123291. No.7123291 is pending in 30 countries and regions across the world (as of October 20, 2022).

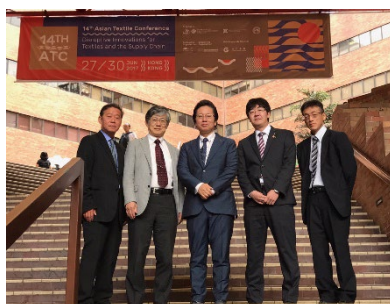
CYBER X
INNOVATIVE FUNCTIONAL HAIR



CYBER X is the functional artificial hair developed through about 15 years of joint research with Dr. Takeshi Kikutani (Specially Appointed Professor, School of Materials and Chemical Technology, Tokyo Institute of Technology), a world-renowned expert in fiber science and our academic adviser. We have recreated the shine just like natural hair using our proprietary technology to reduce shine (Japanese Patent No. 5518857), finishing the product with a sea-island structure composed of polyamide and polyester. This technology has been developed based on the one that received the “Best Paper Award: Textile Materials” at the 14th Asian Textile Conference (ATC-14) in 2017, in recognition of the improved appearance of artificial hair achieved through surface roughening.



The Certificate of the Best Paper Award: Textile Materials



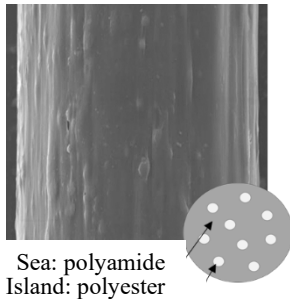
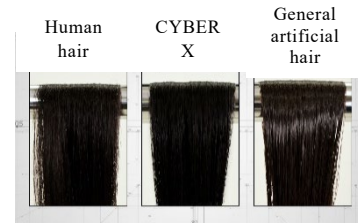
From left: Hideki Takahashi (Deputy GM, Product Planning Development Dept. [PPD], Aderans), Specially Appointed Professor Takeshi Kikutani (Tokyo Institute of Technology), Yoshihiro Tsumura (President, Aderans), Shunsuke Sato (Leader, PPD), and Masatoshi Seki (Submanager, PPD)



Shunsuke Sato (Leader, Product Planning Development Dept., Aderans) giving the presentation at ATC-14

■ **Recreating the Shine and Feel Just Like Natural Hair, Through a Sea-Island Structure Created with Our Proprietary Technology**

We have recreated the shine just like natural hair by finishing CYBER X with a sea-island structure composed of polyamide and polyester. This is made possible thanks to our proprietary technology to reduce the shine of hair fibers, leveraging the uneven surface we create by mixing melted polyamide and polyester and extruding them at or below a specific temperature (Japanese Patent No. 5518857).

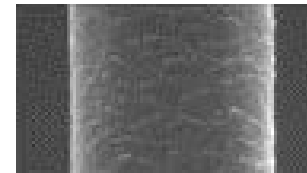


Sea: polyamide
Island: polyester

Surface with the sea-island structure



Surface of a general artificial fiber



Surface of a human hair

■ **The Best Quality in Bounce, Strength, and Volume Among Hairs Developed by Aderans**

By blending polyamide and polyester, we have successfully developed the best hair fiber in bounce, strength, and volume among the products developed by the company. Since the hair is lifted from the root, CYBER X adds volume naturally even with fewer strands.

■ **Preventing Generation of Static Electricity*2, a Factor Leading to Hair Damage, with Aderans' Proprietary Technology**

We have successfully prevented generation of static electricity*2, a long-standing challenge facing human and artificial hair, with our latest manufacturing technology to add antistatic agents when creating hair (Japanese Patent No. 7123291). Thanks to this antistatic*2 technology, CYBER X also reduces frizz and makes styling easy.



*2 Compared with conventional hair fiber developed by Aderans

■ **Aderans' Development Efforts on Functional Artificial Hair: Aiming for a Sustainable Society**

Since 1983, Aderans has been working to develop functional artificial hair as an alternative to human hair, which is feared to become more difficult to obtain in the future. Our functional artificial hair is also environmentally friendly, not using polyvinyl chloride (PVC) but made from materials less likely to emit pollutants when incinerated. By advancing the technology to reduce shine through the newly developed sea-island structure, we have also successfully reduced waste generated in the process to reduce shine*3. We are committed to continuing our efforts to develop the best and most advanced hair fiber while incorporating the concept of the Sustainable Development Goals (SDGs). *3 Compared with conventional hair fiber developed by Aderans

■ **Offering Wigs to Accommodate a Variety of Needs**

People need wigs for a variety of reasons in addition to a concern about thinning hair, including hair loss due to chemotherapy for breast and other types of cancer, alopecia areata (patchy hair loss), trichotillomania (hair-pulling disorder), and burn scars. Since 1978, we have been committed to the Love Charity program, providing wigs free of charge to children who have



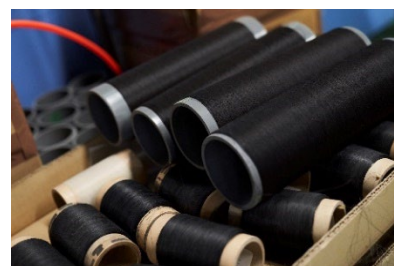
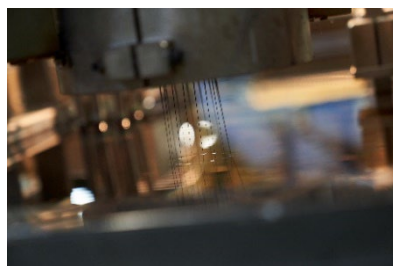
Aderans Co., Ltd. supports the Sustainable Development Goals (SDGs).

lost their hair due to illness or injury. We also provide products that meet the JIS (Japanese Industrial Standard) requirements as medical wigs (JIS S9623) and work to further improve their quality, aiming to help patients and healthcare providers based on their perspectives. As a global company, the Aderans Group is committed to actively addressing various global issues mentioned in the SDGs and to solving social problems through its business activities, striving to help build a sustainable society and to achieve sustainable growth.

Aderans is the only wig manufacturer in Japan that integrates the entire process, from in-house development of functional artificial hair to sales of wigs. Aiming to develop artificial hair that goes beyond human hair, in 1983, we started conducting research on functional artificial hair. In 1987, we successfully developed our first functional artificial hair with excellent style retention by forming artificial cuticles on the surface. This product, named Cyberhair, was launched in 1991. Since 2006, we have also been offering Vital Hair (Japanese Patent No. 5127443*4), which can change with rain, water, and humidity like natural hair. We continue to make constant research efforts on hair fibers at our in-house research institute in Niiza City, Saitama Prefecture.

*4 This patent is registered in 24 countries and regions.

CYBER X will be introduced in our new hair-volumizing products launched on Thursday, October 20, 2022: “PINPOINT RISE” (for men) and “Hair Up α Liberté” (for women). We will use CYBER X in other key products as well, including wigs, and promote it not only within Japan but across the globe including the United States and Europe.



Takeshi Kikutani

Specially Appointed Professor, School of Materials and Chemical Technology
Tokyo Institute of Technology

In 1982, Dr. Kikutani completed the doctoral course in textile engineering at Tokyo Institute of Technology Graduate School of Engineering. Following the retirement in 2020 as Professor at School of Materials and Chemical Technology, Tokyo Institute of Technology, he continues to contribute to the School as Specially Appointed Professor. Since 2021, he has also been serving as Project Professor at Kyoto Institute of Technology. Dr. Kikutani has received numerous awards, including the Outstanding Achievement Award of the Society of Fiber Science and Technology and the SPSJ (The Society of Polymer Science, Japan) Award for Outstanding Achievement in Polymer Science and Technology. He has served as president of many organizations, including the Society of Fiber Science and Technology and the Japan Society of Polymer Processing. Dr. Kikutani is the current president of the Fiber Society in the United States.



< **Media Inquiries** >

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