News Release

October 9, 2025
NTT ADVANCED TECHNOLOGY CORPORATION

NTT-AT has successfully developed a PFAS-FREE Super Hydrophobic Coating, HIREC

— complying with the worldwide trend of PFAS restrictions —

NTT ADVANCED TECHNOLOGY CORPORATION (hereinafter: NTT-AT, headquartered in Shinjuku, Tokyo, President: Tadashi ITO) has been offering the long-selling superhydrophobic coating, HIREC® which has over 150 degrees of extraordinary initial contact angle and has great performance stability for a long period of time. HIREC® is applicable to a wide range of applications such as communication equipment, infrastructures, art, and more to avoid accretion of rain, snow, and ice for safety or maintenance purposes.
This time, NTT-AT has successfully completed the development of PFAS-FREE HIREC which does not contain any Per- and polyfluoroalkyl substances (PFAS) while keeping the outstanding water repellency and other functions.
NTT-AT is going to start selling PFAS-FREE HIREC within this year.

1. Background of Development and Product Summary

PFAS has been widely used in various industries particularly because of their chemical stability and their great hydrophobic nature. However, in recent years, their long-term residue in the environment and human body has been a concern and the restriction of PFAS has been discussed worldwide.
NTT-AT's HIREC brings over 150 degrees of initial contact angle between the painted surface and a water droplet. It has been widely used for various purposes such as prevention of radio attenuation, snow falls, and accretion of ice for antennas and radomes. In the meantime, HIREC does not contain any PFOA[*1], PFOS[*2], and PFHxS[*3] which are restricted by POPs Convention[*4].

Water droplet on surface of newly developed HIREC

2. Feature of newly developed HIREC

The newly developed HIREC is a non-fluorine super hydrophobic coating which does not contain any PFAS while keeping the same level of performance as our long-term selling HIREC series. The light permeability has improved compared to the conventional HIREC (*increased from about 5% to 40%) which will expand the possible applications to paint HRIEC.

We are planning to start selling two types of products.
・Water-based paint: less restrictions on shipment and storage
・Solvent-based paint: fast drying and great durability

An aerosol type is under development as well.

3. Launch Date

We are planning to start selling both the water-based and the solvent-based versions in November 2025.

4. Price

Please contact us via our website below for more information such as the price, usage instructions, etc.

5. Future Development

NTT-AT will continue offering the conventional HIREC series with self-cleaning function which could minimize the deterioration of water repellency due to dust in the air. At the same time, we will continue developments to expand our product lineups to meet our customers' demands and what society requires.

6. Detailed information about the super hydrophobic coating, HIREC series

https://keytech.ntt-at.com/environ/prd_4001.html

*1 Perfluorooctanoic acid (PFOA), its salts and PFOA related compounds
*2 Perfluorooctanesulfonate (PFOS) and its salts
*3 Perfluorohexane sulfonic acid (PFHxS) and its salts and PFHxS-related compounds
*4 Stockholm Convention on Persistent Organic Pollutants about POPs (Persistent Organic Pollutants)

* The data is current as of the date of publication. Please note that the information is subject to change without notice.

■For further information, please contact:
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https://keytech.ntt-at.com/environ/prd_4001.html

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