

October 26, 2022

NTT Advanced Technology Corporation

Developed and launched water-based super hydrophobic material (HIREC® 300-W)

- Super hydrophobic performance equivalent to HIREC 100, non-Dangerous Goods for shipment and storage, friendly to human and the environment

NTT Advanced Technology Co., Ltd. (NTT-AT, Headquarters: Shinjuku-ku, Tokyo, President and CEO: Tadashi Ito) has developed a new product HIREC 300-W and will start selling it globally today. HIREC 300-W joins the HIREC series of super water-repellent materials that achieves super water-repellency with over 150 degrees of initial contact angle.

HIREC 300-W contains almost no volatile organic compounds (VOC). Therefore, it is friendly to human and the environment, and has no flash point which brings benefits to its shipment and storage. In particular, it can help us to significantly reduce shipping costs especially to foreign countries. Besides, HIREC 300-W does not require thinner because it can be diluted with water. Furthermore, it has a self-cleaning function equivalent to that of HIREC 100, which enables to maintain super water repellency outdoors for approximately 3 years.

NTT-AT's HIREC super water-repellent material contributes to the maintenance of customers' various facilities by preventing ice and snow accretion, snow and ice from falling, and unnecessary electrical conduction caused by wetness.

■Background

A typical fluoropolymer coating has a water contact angle of about 100 degrees, which indicates good water repellency, However, HIREC, a super hydrophobic material, has over 150 degrees of excellent initial contact angle.

■HIREC 300-W

HIREC 300-W is super hydrophobic, with over 150 degrees of initial water contact angle, which is the hallmark of the HIREC series. In addition, the self-cleaning function equivalent to that of HIREC 100 ensures that the contact angle stays at 140 degrees or larger for approximately 3 years outdoors, an unparalleled performance. While maintaining such superior water repellent performance of the HIREC series, HIREC300-W is a water-based material that contains almost no VOC and is friendly to human and the environment, helps to protect your equipment from water film, snow and ice.



HIREC 300 - W (in a plastic container)

Comparison with HIREC 100

Item	HIREC 100	New product HIREC 300-W
Initial contact angle	150 degrees or more	150 degrees or larger
Self-cleaning function	Yes (expected life: about 3 years)	Yes (expected life: about 3 years)
Dilution solvent	Dedicated thinner	Tap water
Flash point (state of paint)	29°C	None
Container	Metal	Plastic
Method of painting	Brush, roller, air spray	Brush, roller, air spray
Keynote color	White Opaque	White Opaque
Radio wave permeability	Approx. no attenuation up to 40 GHz	Approx. no attenuation up to 40 GHz





■ Start offering

October 26, 2022

■ Offered price

For more information on usage, prices (estimates), etc., please refer the following contact:

Reference: Super water-repellent material "HIREC" series

Product name	Main Applications	Features, etc.
HIREC 100 	Outdoor ・Antenna (Parabola, Radome, etc.) ・Steel towers, bridges, wind turbines, etc.	・Self-cleaning function ・White opaque (color changeable) ・Primer required
HIREC 1100 	Outdoor ・For repairs	・Quick and easy repair for a HIREC 100 surface ・White opaque (color changing negotiable)
HIREC 450 	Indoor ・Heat exchanger, filter, etc.	・White opaque ・One coat without primer ・Available only for air spray painting.
HIREC 1450NF 	Indoor ・For repairs	・Quick and easy repair for a HIREC 450 surface ・White opaque

*HIREC is a registered trademark of NTT Advanced Technology Corporation.

*The data shown is as of the date of publication. It is subject to change without any notice.

For further information:

Contact information for product inquiries

NTT Advanced Technology Corporation
Green & Product Innovation Division
Environmental Business Unit
In charge of HIREC
https://keytech.ntt-at.co.jp/en/environ/prd_40022.html

Press information

NTT Advanced Technology Corporation
Corporate Communications Division, Business Promotion Department
Responsible for: Kato or Masuda
E-mail: inquiry@ml.ntt-at.co.jp