Functional Textiles and Trading

Contributing to the reduction of environmental impacts through high energy efficiency Joint development of energy-saving air conditioner components and materials together with Panasonic



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Director
Japan Exlan Co., Ltd.

Japan Exlan Co., Ltd. has developed a desiccant rotor using paper coated with fine particles that absorb and desorb moisture through acrylic material. Heat pump-type air conditioning is typically used in buildings and plants. Absorbing moisture from air prior to intake by the heat pump, followed by contact with the refrigerant, eliminates discharge of drain water and enables highly energy-efficient cooling. Providing humidity in winter also enables efficient heating, achieving

significant energy savings compared to conventional heat pump-based air conditioning.

Panasonic evaluated the desiccant rotor, which features quick regeneration at lower temperatures and with low energy usage and adopted for use in its air conditioners in 2022. As a result of achieving industry-leading energy-saving performance through joint system design by Panasonic Corporation and our company, Panasonic Corporation was a recipient of the Energy Conservation Grand Prize in fiscal 2022 and fiscal 2023.





Desiccant rotors adopted for use in Panasonic air conditioners