

NEWS RELEASE

25 October 2021
Nippon Sheet Glass Co., Ltd.

NSG Group and Cohda Collaborate to Create Futuristic Electrical Glass Applications

The NSG Group has collaborated with Cohda Design Limited (UK) to create new glass applications that deliver power to devices without the need for wires.

The NSG Group supplies its NSG **TEC™** electrically conductive glass (*1) to customers of Cohda, which combines the product with its patented Power-Tap® (P-Tap®) (*2) wireless power technology. P-Tap® technology allows electricity or data to be transferred wirelessly through a transparent conductive coating to power any device. This allows glass to act as a wire, transferring power out through contact alone.

Electricity typically flows into the glass via a connection at the perimeter of the glass surface. This creates the positive and negative charge, which flows invisibly through individual layers within the conductive glass' lamination and into any connected device placed on apertures, or contact points, on its surface.

The collaboration has a vast array of applications for designers, architects and engineers to locate powered devices within transparent structures. Early applications have included retail, where in-store display stands can wirelessly charge electronic devices such as mobile phones and cameras; and in automotive, to power head-up display screens that are embedded in a vehicle's windscreen.

For example, in art galleries or museums embedded LED lights can illuminate a glass display cabinet without aesthetically disruptive wires. In kitchens of the future, P-Tap technology can be installed in a clear glass counter, with power concentrated at various spots. This can provide induction heating for pans, power kitchen appliances such as kettles and toasters, and even charge your phone wirelessly, all on the same surface of glass.

NSG **TEC™** electrically conductive glass is ideal for use with P-Tap technology. The glass has high light transmission, durability of the glass coating and potential for thermal treatment, so it enables P-Tap technology to be used to meet a wide range of design challenges across different settings.

Aiming to be a global glass supplier contributing to the world with high value-added glass products and services, the NSG Group has identified "Safety & Comfort" as one of the three areas it intends to contribute to. The NSG Group is working to open the door to new possibilities for innovation through glass, with potential applications across all industries.

About the NSG Group (Nippon Sheet Glass Co., Ltd. and its group companies)

The NSG Group is the world's leading supplier of glass and glazing systems in the business areas of Architectural, Automotive and Creative Technology.

Architectural manufactures and supplies architectural glass as well as glass for the solar energy and other sectors.

Automotive serves the original equipment (OE) and aftermarket replacement (AGR) glazing markets.

Creative Technology comprises several discrete businesses, including lenses and light guides for printers and scanners, and specialty glass fiber products such as glass cord for timing belts and glass flake. <https://www.nsg.com>

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*1 NSG **TEC**[™] electrically conductive glass

A range of low-emissivity glasses with a pyrolytic on-line electric conductive coating of special qualities. NSG **TEC**[™] offers a wide variety of thermal and heated glass performance properties, whilst increasing light transmittance and optimising electrical conductivity. The products are specifically tuned to meet the requirements of a wide range of applications.

<https://www.pilkington.com/en/global/products/product-categories/special-applications/nsg-tec-for-technical-applications>

*2 P-Tap[®]

P-Tap[®] is an abbreviation for Power Tap[®]. It's a transparent lamination of conductive and non-conductive glass. The arrangement allows power or data to be transferred across individual layers within the lamination. Pre-machined apertures create taps to the positive and negative charged inner coatings that supply power delivery to embedded devices. These connected devices appear to be freely floating within an optically clear glass panel with no visible means of power connection.

<https://www.cohda.com/projects/power-tap/>



[Watch Power Tap \(P-Tap\) Display Table Movie](#)

Photography: Cohda Design Limited