

September 2, 2020  
Nippon Electric Glass Co., Ltd.

## **3M Company Uses G-Leaf™ for Its Auto Darkening Welding Helmets**

G-Leaf™ Ultra-thin glass from Nippon Electric Glass Co., Ltd. (NEG; Head Office: Otsu, Shiga, Japan; President: Motoharu Matsumoto) is used in the latest model of 3M Company's welding helmet (brand name: 3M™ Speedglas™ Welding Helmet G5-02), which was released in Europe September 1, 2020. This is the world's first\*<sup>1</sup> welding helmet with a curved Auto Darkening Welding filter (ADF). The ADF controls the intensity of light passing through it by applying a voltage to liquid crystals in the filter. Multiple sheets of G-Leaf™ with transparent conductive coatings are used as substrates of the liquid crystal module.

3M™ Speedglas™ Welding Helmet G5-02 with the curved ADF features a significantly wider viewing angle than conventional products, as well as a compact and lightweight design. The high flexibility achieved due to the thinness and NEG's technology of forming a high-quality transparent conductive coating on Ultra-thin glass have greatly contributed to the curved filter and the more compact and lightweight helmet.

\*1: As of September\* 2020, according to research by 3M Company



Image of wearing a 3M™ Speedglas™ Welding Helmet G5-02



ADF using G-Leaf™

(Courtesy of 3M Company)

As a leading manufacturer of special glass, NEG produces and supplies high-quality thin glass and contributes to the development of various industries. The company also actively develops products that make use of its coating technologies, including those for making transparent conductive coatings and anti-reflection coatings. NEG will continue to provide society with new value through the manufacture of products that meet diverse needs, including the needs for larger, thinner and more flexible glass and more advanced coatings.

Note: 3M™ Speedglas™ is a registered trademark of 3M Company.

About G-Leaf™:

G-Leaf™ is an Ultra-thin glass with a thickness of 200 μm (0.2 mm) or less and is manufactured and supplied by NEG. Featuring excellent smoothness, G-Leaf™ is flexible and can be wound into a roll. Due to these excellent characteristics, G-Leaf™ has been increasingly used in the fields of flexible devices and touch panels.