

Glass that Goes beyond Glass
超越玻璃的玻璃

Tough
超強

Thin
超薄

Light
超輕

Coating
鍍膜

卓越的玻璃鍍膜技術

Advanced Glass Coating Technology

— 藉由**鍍膜技術** 開拓玻璃的應用前景！ —

More Advanced **Coating** for Glass!



Coating

GLASS FOR FUTURE

 日本電氣硝子

從設計到量產，提供全方位 完整的玻璃鍍膜技術！

Glass Coating Technology Applicable to All Stages from Design to Mass Production!

由通曉特殊玻璃的專家，針對超薄玻璃的鍍膜，
以先進技術提供獨具價值的方案。

As an expert in special glass, knowing everything there is to know about the properties of glass, we offer unique value with our advanced technology, such as coating on ultra-thin glass.

細心、迅速地對應

針對客戶端提出的各種用途、功能的鍍膜需求，提供高附加價值方案。
追求[玻璃+鍍膜]的可能性，可全程應對將到批量生產為止的各項程序。

Thorough and speedy response to your needs

Our coating technology fulfills various needs and performance requirements, and brings high added value. Pursuing the possibilities of "Glass + Coating", we cover all processes up to mass production.

Start

藉由鍍膜技術，提供玻璃附加價值的提案
Our coating technology offers added value for glass.

Step 1

- 確認材質
Examine material
- 設計薄膜
Design coating
- 選定鍍膜方式
Select coating method

鍍膜技術 (DRY、WET Coating)
Coating technology
(Dry/Wet coating)
藉由模擬操作可選擇適當的材質
鍍膜設計技術
Material/coating design by
simulation

Step 2

- 提供樣本
Offer evaluation samples
- 共享特性及評估成果
Share properties/evaluation results
- 找出問題並加以改善
Identify and solve problems
("Kaizen")

光學特性評估技術
(折射率、反射率、穿透率、光澤度、
霧度、色度、閃光、解析度、映射)
Optical property evaluation
technology
(Refractive index, Reflectance,
Transmittance, Gloss, Haze,
Chromaticity, Sparkling, Resolution,
Reflection)
耐久性評估技術
(環境測試、耐磨耗性測試、耐藥品性測試)
Durability evaluation technology
(Environmental test, Wear resistance
test, Chemical resistance test)

Step 3

- 在量產線上進行中批量
試作
Medium-scale trial production
on mass production line
- 決定量產規格
Decide specifications for mass
production

量產開始 Start Mass production

- 量產設備維護工程
Mass production equipment
maintenance engineering
- 品質管理
Quality control
- 售後服務
After-sales service

從一般顯示器到車用顯示器，附加各式各樣價值的鍍膜技術。

Coating technology can add value to a wide range of applications, from displays to on-board vehicle equipment.

Anti Glare

防眩鍍膜

在玻璃表面進行細微地凹凸加工，使反射在玻璃上的影像不明顯，可
提高影像的可視性。此外，由於抑制了反光，更可呈現高解析顯示器的
性能。

Minute unevenness on glass surface minimizes reflection and
improves visibility. By reducing sparkling, the performance of
high-resolution displays can be maximized.

Anti Reflection

抗反射鍍膜

減少反射在玻璃上影像，影像呈現更清晰。從高透光到超高透光「隱
形玻璃™」，擁有廣泛鍍膜設計。

This AR coating reduces the reflectance of light from outside, and
makes images more clear and vivid. A wide variety of coating design,
from high transmittance to ultra-high transmittance "Invisible
Glass™," is available.

Anti Fingerprint

防污鍍膜

不容易附著指紋等髒污，容易擦拭。透過優化鍍膜條件實現高耐
久性。

This AF coating prevents fingerprints, dirt and stains. Or you can easily
remove these dirties. High durability is ensured with optimized
coating conditions.

Half Mirror

單向透視鏡

當搭載在背面的顯示器電源關閉時可視為鏡子，打開時則顯現
出影像。此外，耐熱溫度高，也能結合觸控感測器。

This is usually good for mirror, but it can be turned to display monitor
when you switch it on. With high heat resistance, it can be used in
combination with a touch sensor.

IR-Cut+ AR Coating

隔熱反射膜

紅外截止+AR鍍膜可抑制紅外線穿透及降低光反射。應用於蓋板玻璃
時，可同時達到影像美化、降低模組內部溫度的效果。

This IR-Cut+AR coating reduces not only the IR-transmittance but also
the reflectance of light from outside. By using this IR-Cut+AR coating
for the cover glass, it will complement both beautification of the
image and reduction of the temperature rise inside the module.

從各種顯示器到車用顯示器，皆可廣泛應用於各式各樣的領域

Applications in a wide range of fields available, from various displays to on-board equipment



車用顯示器
On-board display



車載智慧型
後視鏡
On-board
smart mirror



行動裝置
Mobile device



太陽能電池
Solar cell



觸控感測器
Touch sensor



軟性顯示器
Flexible display



圖像感應器
(相機模組用)
Image sensor
(for camera module)



宇宙太陽能
發電用鏡子
Mirrors for
space solar
power system

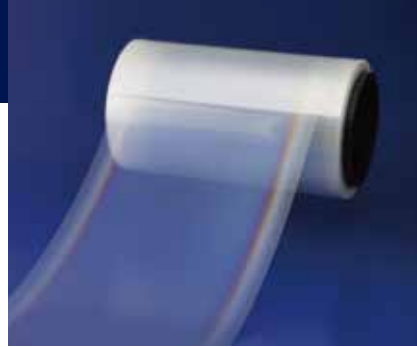
以鍍膜核心技術衍生出獨特的觀點與構思中展開

Unique perspectives and ideas expanded from core coating technology

ITO Indium Tin Oxide

透明且具有導電特性的薄膜，藉由與超薄玻璃G-Leaf™的搭配，能廣泛應用於各種領域。

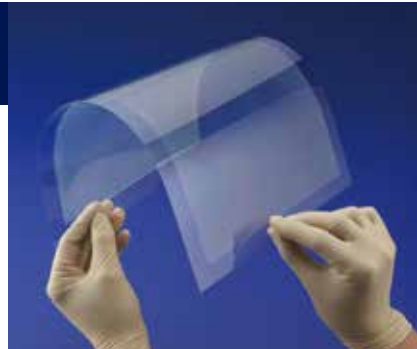
ITO is transparent and electro-conductive coating. It is available for a wide range of applications by combining with G-Leaf™, ultra-thin glass.



FTO Fluorine doped tin oxide

透明導電膜具有優異耐熱性。也能應用於超薄玻璃G-Leaf™的表面。

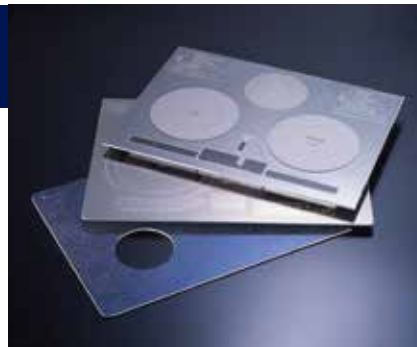
FTO is transparent conductive coating with high heat resistance. It is available for the coating on G-Leaf™, ultra-thin glass.



數位著色 Digital coloring

運用玻璃的質感，實現多彩的光澤感著色。也可與觸控感測器搭配，應用於智慧型家電等產品。

A variety of metallic colors can be applied while maintaining the texture of glass. It can be combined with touch sensors, and used for smart home appliances.



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