CORPORATE PRESENTATION

Glass processing and glass coating

Kartepe / Kocaeli · www.bycunited.com



CORPORATE

About us

Known in the industry as BYC thanks to its registered trademark, our company is a pioneering and leading manufacturer of glass processing, glass coating, grinding discs, drill bits, glass processing fluids and high-temperature resistant paint, with its experienced staff and over 20 years of experience.

By producing for and exporting to companies in Turkey and abroad on an OEM/ODM basis, we contribute to our country's economy.

Our factory, which is also our headquarters, is in Kartepe / Kocaeli. With an advanced technology machine park and a specialized team of about 20 people, it operates in a closed area of 2000 m².

UNITED



20+ years
Experience

2000 m²
Closed area

~20 people
Specialized team

OEM / ODM
Domestic and export

Original products of our own development

01

Antireflective coated glass

High light transmission LED fixture and display glass

02

Hydrophobic coated glass

Surfaces with high water repellency

03

Anti-glare glass

Coated glass that reduces glare and reflection

04

Anti-bacterial and hydrophobic coating

Easy-to-clean, hygienic surfaces

05

Coloured glass

Glass solutions in the colour you need

06

Custom designed products

Production in project-specific sizes and shapes

CORPORATE

History

1992

5 MAY

We were founded in Zeytinburnu / İstanbul.

2004

2 DECEMBER

Our ISO 9001 Quality Management System was certified to ISO 9001:2000.

2005

14 APRIL

After a change of legal form, we took the name United Endüstriyel Elmaslar Gıda ve Sağlık Hizm. San. ve Tic. Ltd. Şti.

2010

2 OCTOBER

Our ISO 9001 system was renewed to ISO 9001:2008.

2013

8 NOVEMBER

Our Kartepe / Kocaeli branch was opened.

2014

1 FEBRUARY

We commissioned our new antireflective coating line.

2017

26 JANUARY

We became Turkey's 33rd fastest-growing company.

OUR PRODUCTS

Products of our glass processing line

Our company produces the following original products on its glass processing line.

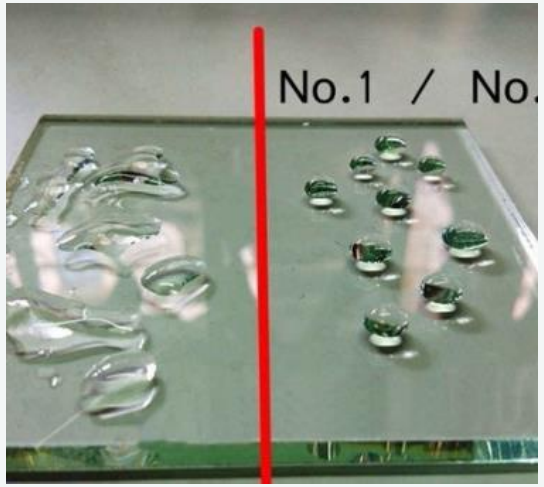
01 LED lighting glass	06 EMI glass
02 GOBO glass	07 Chemical glass tempering
03 Anti-glare coating	08 Anti-bacterial coating
04 Antireflective coating	09 Hydrophobic coating
05 Antifog coating	10 Anti-finger coating



ANTIFOG COATING



EMI GLASS



HYDROPHOBIC COATING



ANTI-FINGER COATING

OUR PRODUCTS

Other products we actively manufacture

01
Drill bits

02
Glass grinding discs

03
High-temperature resistant paint

04
Glass grinding coolant







PRODUCTION

Our production lines

01 CNC cutting

02 Laser cutting

03 Water jet cutting

04 CNC grinding

05 Washing and tempering

06 Chemical tempering



PRODUCTION LINES

CNC cutting line

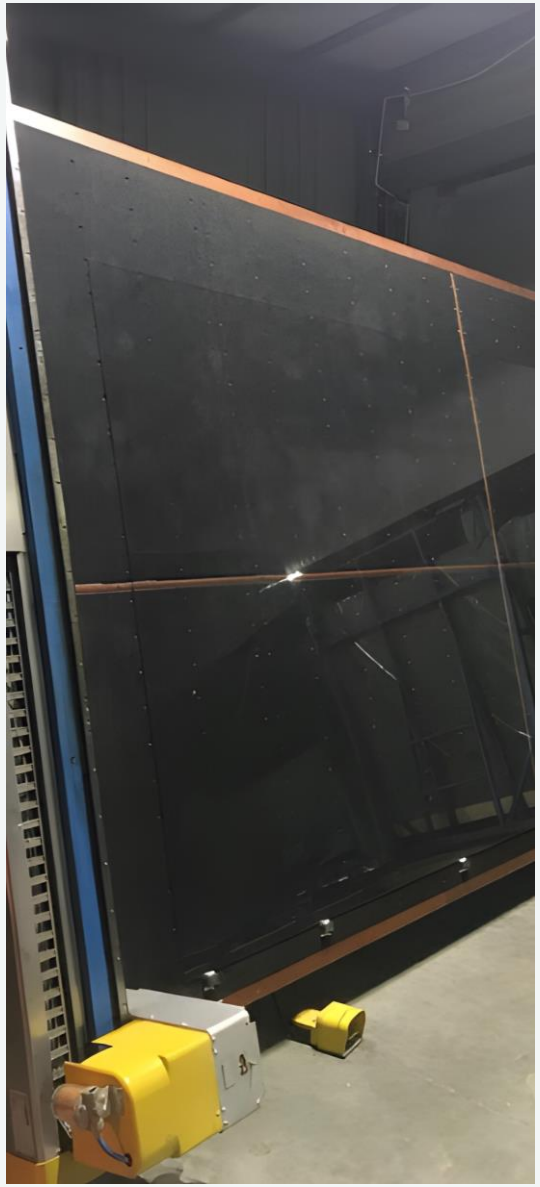
The diamond tips used for cutting scribe a shallow line on one surface of the glass. With applied pressure, the glass breaks into two clean pieces.

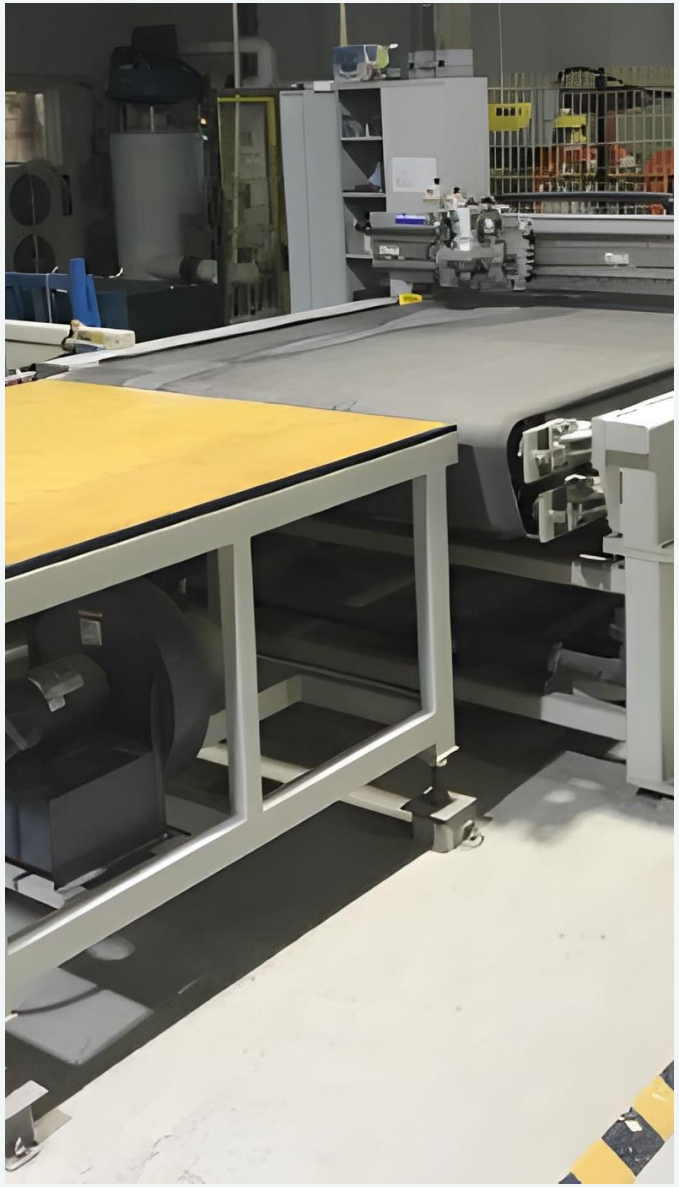
Cutting oil is used during scribing so that the line does not close.

The CNC glass cutting machine can cut glass in any required size and shape.

0.5 mm

thick glass can be cut





PRODUCTION LINES

Laser cutting line

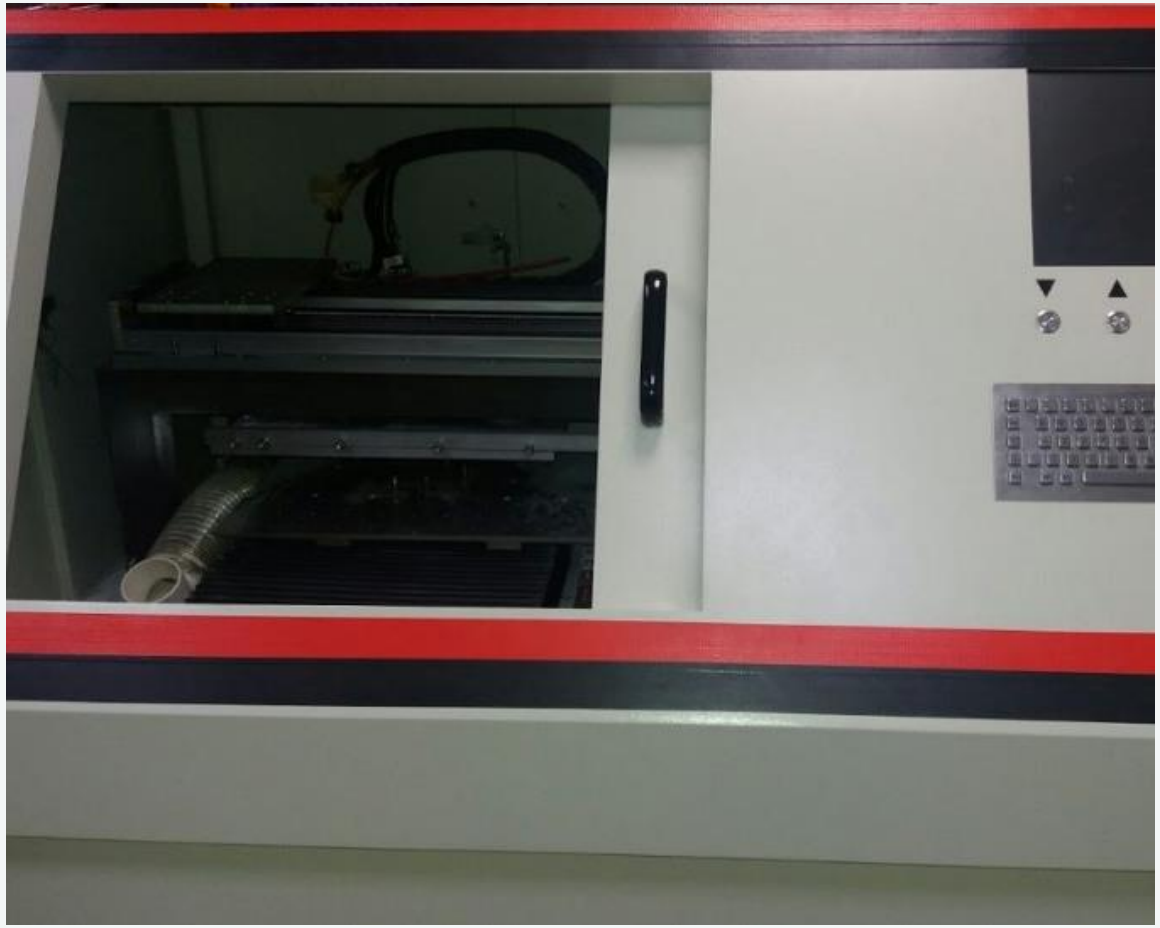
0.2 – 10 mm

glass thickness

400 × 600 mm

maximum glass size

- All kinds of shaped glass can be cut.
- Coated glass can be cut.



PRODUCTION LINES

Water jet cutting

Water jet glass cutting is based on the controlled abrasion of the glass surface by adding abrasive sand to high-pressure water.

This method cuts glass without heating it or creating thermal stress. Complex shapes, inner holes and rounded contours are cut easily, and clean edges are obtained without grinding.

305 × 460 mm

maximum cutting size



PRODUCTION LINES

CNC grinding line

0.5 – 10 mm

glass thickness

Glass size that can be ground

MIN. **45 × 45 mm**

MAX. **1000 × 2000 mm**

± 0.1 mm

size tolerance

Shaped and coated glass can be ground.





PRODUCTION LINES

Washing and tempering



Washing machine

After cutting and grinding, the glass is washed to remove contamination.



Tempering line

3.2 – 10 mm

tempering thickness

2000 × 1000 mm

glass size

Coated glass can be tempered.

PRODUCTION LINES

Chemical tempering line

0.5 – 19 mm

glass thickness that can be tempered

ADVANTAGES OF CHEMICAL TEMPERING

- Thin glass can be tempered
- The geometry of curved glass is preserved
- Excellent optical quality
- Up to 4 times stronger than thermal tempering
- No surface distortion
- Drilling, cutting, polishing, sandblasting and edge work are possible after tempering



COATINGS AND SPECIAL GLASS

Coatings and special glass

01 EMI glass

02 GOBO glass

03 AR and vacuum AR coating

04 AG coating

05 Anti-bacterial coating

06 Screen printing



SPECIAL GLASS

EMI glass

EMI glass (electromagnetic interference shielding glass) is a special glass technology with a conductive thin-film coating, designed to block harmful electromagnetic radiation and RF signals while preserving visible light transmission.

It works by reflecting incoming electromagnetic waves at the surface and dissipating them through a conductive frame and grounding line. It stands out with its shielding effectiveness (dB) and impact resistance strengthened by chemical or physical tempering.



APPLICATIONS

- Defence industry
- Military displays and shelters
- Medical imaging

SPECIAL GLASS

GOBO glass

- GOBO glass is produced by lithography.
- Glass films are produced in a class 10,000 clean room with advanced equipment.
- Quality control of the produced glass is carried out inside the clean room.

10,000

class clean room



COATINGS

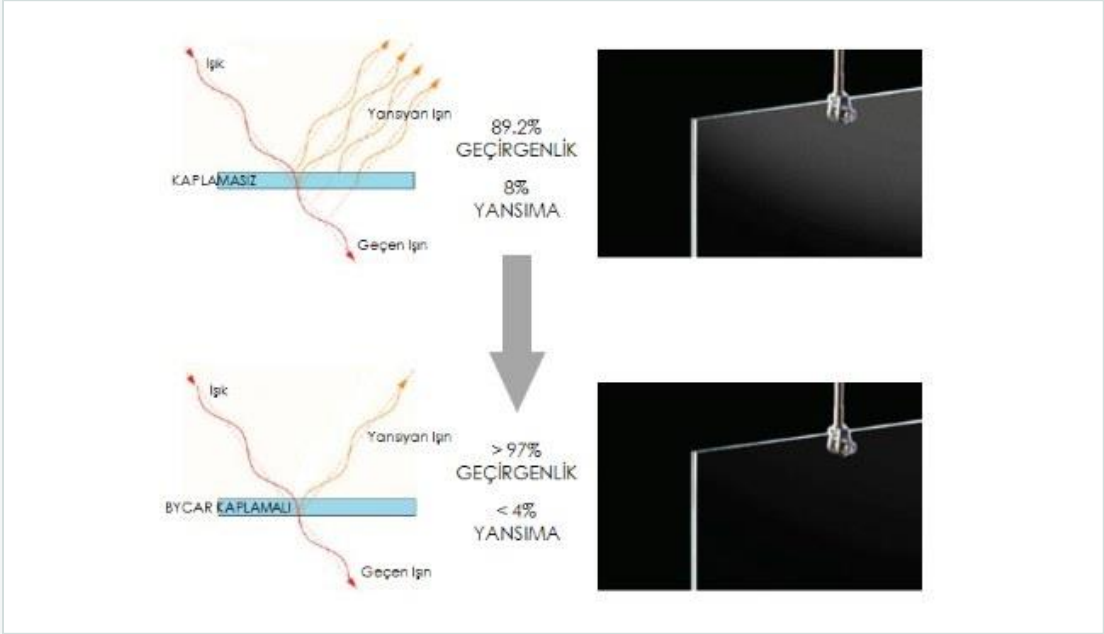
AR coating line

Below 2%

reflection per surface

97%

transmission · varies with glass thickness and type





Our single-layer broadband coating can be applied to glass of different types and thicknesses. Our coated glass can be cut, processed, tempered, bent and laminated.

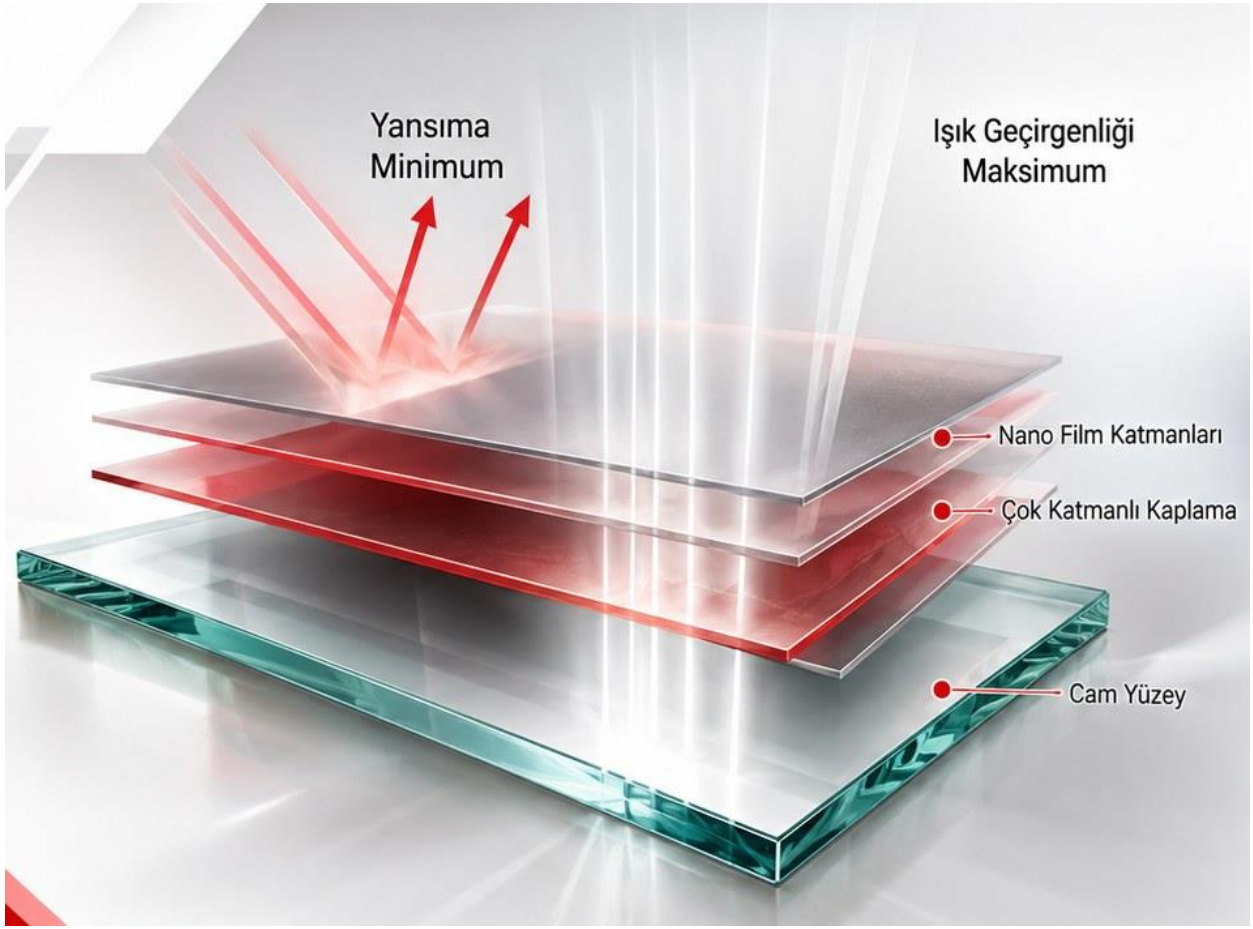
BYC Group recommends antireflective coating for every optical application to increase transmission, efficiency and contrast and to eliminate unwanted secondary reflections. With BYC-AR coating, secondary reflections almost completely disappear.

COATINGS

Vacuum AR coating

Vacuum AR coating is a high-performance, multi-layer coating with nano thin-film technology, applied to the glass surface to minimise reflections and maximise light transmission.

Applied under vacuum, this special coating adds films with nanometre precision to the glass surface and delivers crystal-clear image quality.



COATINGS

AG coating line

Principle: A composite coating solution applied to surfaces by spraying.

1300 × 2500 mm

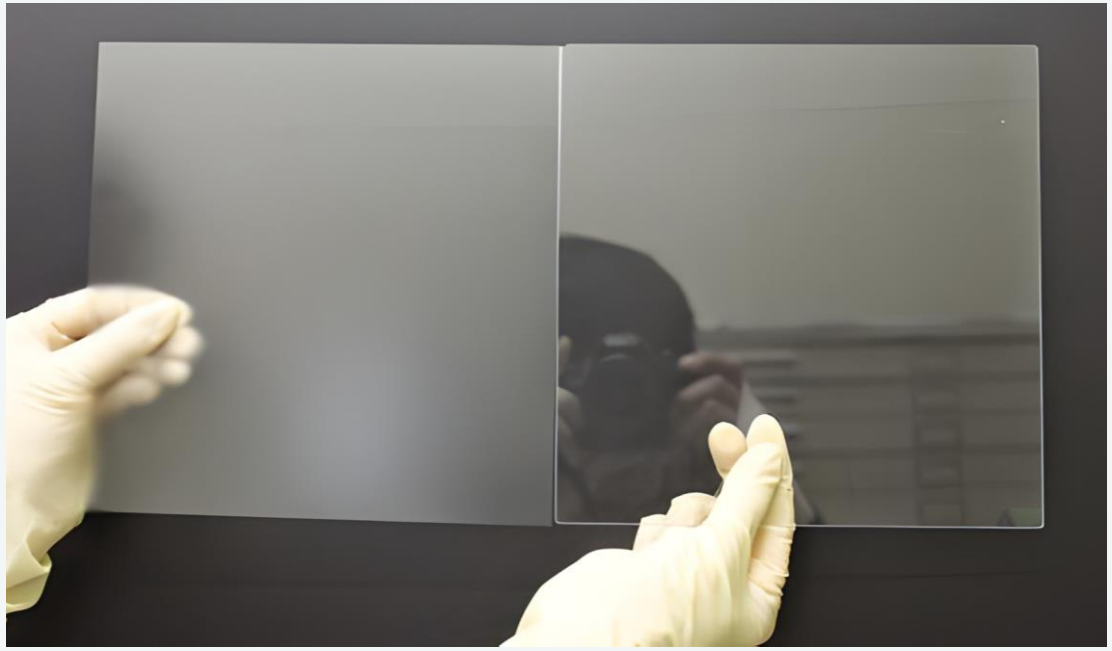
maximum coating size

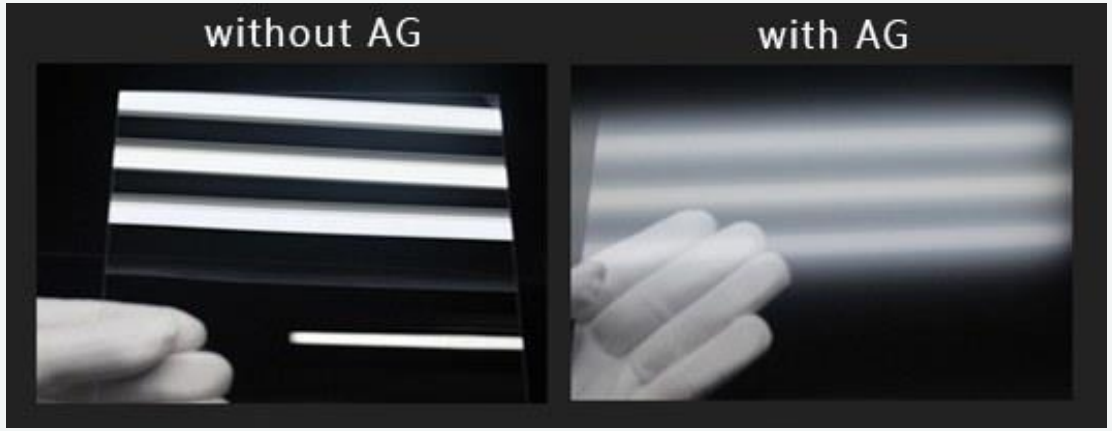
PROPERTIES

- Prevents reflection
- Anti-bacterial properties can be added
- UV protective properties can be added
- Can be coloured

WHERE IT IS USED

- Glass surfaces used as TV screens
- Phone screen protectors
- Lighting industry





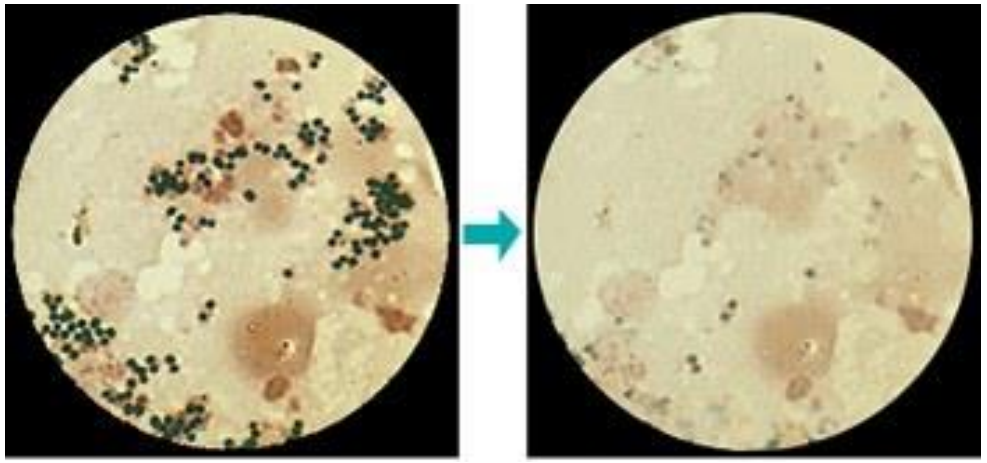
COATINGS

Anti-bacterial coating

Using sol-gel technology, a single-layer coating creates easy-to-clean, anti-bacterial surfaces.

Silver has been used as an antiseptic for centuries and is an excellent anti-bacterial agent. Our coating has been proven effective against many different types of bacteria.

As an invisible coating applied by spraying, it can be used on any surface and eliminates bacteria, viruses and contaminants.



APPLICATIONS

- Hospitals
- Food industry
- Bathrooms and toilets
- Public spaces
- Fabric, plastic, building materials

Water-repellent surface

Prevents algae, mould and fungus in humid places such as shower cabins, bathrooms, sinks, garden walls and vehicles.

COATINGS

Screen printing

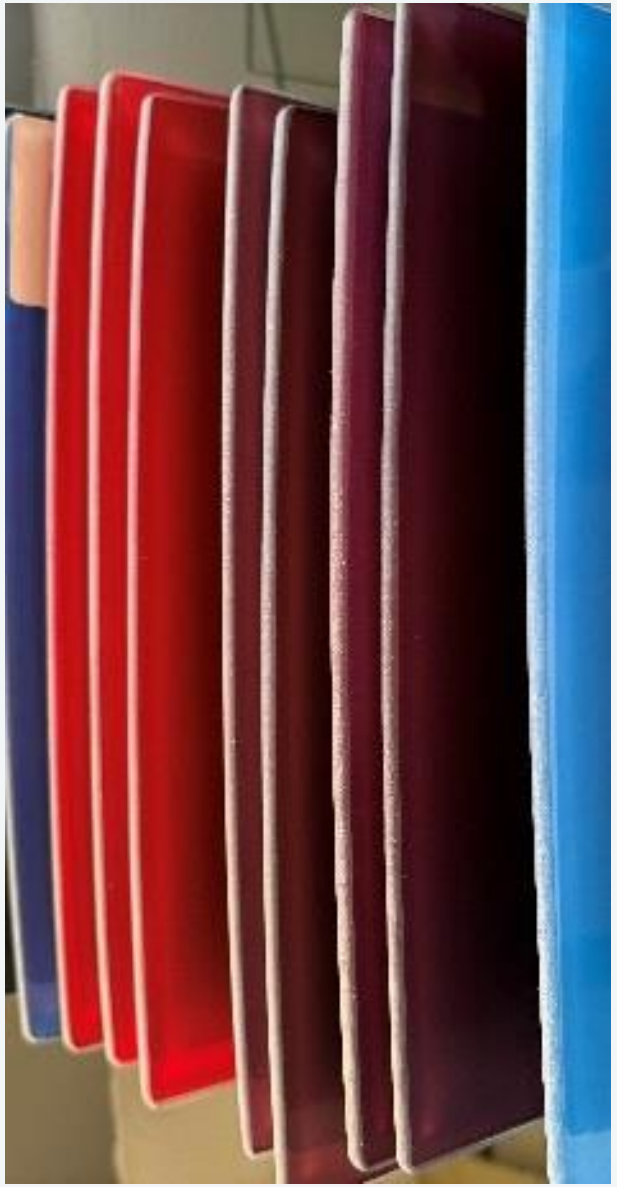
We provide screen printing on glass with organic ink and tempered (ceramic / enamel) ink.

Organic ink

Wide colour range and vivid visual effects.

Tempered ink

Fired at high temperature, it fuses with the glass and offers high mechanical and thermal resistance to UV light, scratches, chemicals and harsh conditions.

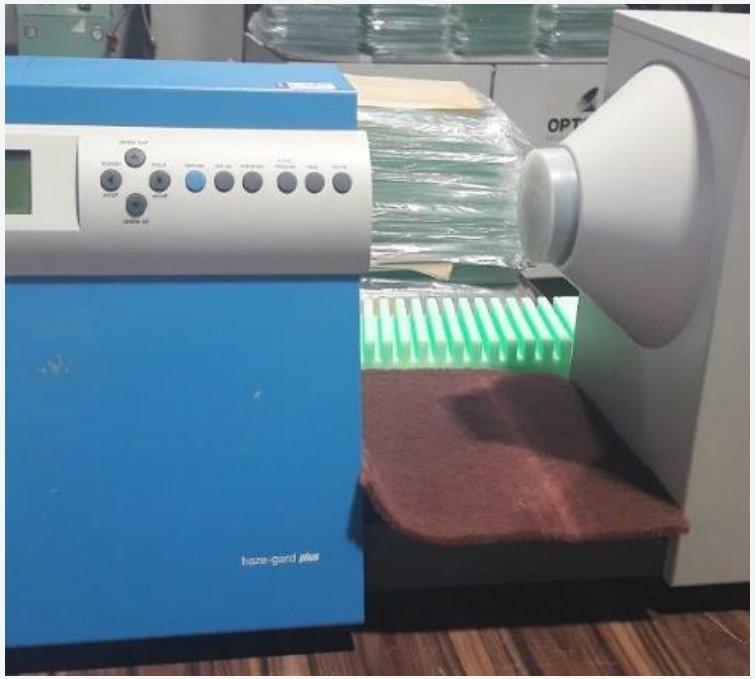




QUALITY

Tests

01	Fragmentation
02	Ball impact resistance
03	Optical properties
04	Surface hardness measurement







QUALITY

Our quality policy

01 To continuously measure customer satisfaction and performance criteria and make the corrections needed to reach our goals.

02 To reach company and unit goals in team spirit, based on the Total Quality philosophy.

03 To follow technological developments and offer our customers products with advancing technology.

04 To raise our employees' awareness for a better environment and ensure the materials we use do not harm it.

Thank you

Send us the size, thickness and quantity for your project, and we will prepare a quote for you.

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