

HEAD OFFICE

1218, Maple Trade Center Near Surdhara Circle, Thaltej, Ahmedabad, Gujarat 380060

MUMBAI

EXPERIENCE CENTER (I)

Andheri (W) Mumbai - 400053

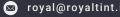
NOIDA

EXPERIENCE CENTER (II)

2619, Supertech Astralis, Sector 94, Noida- 201313 (UP) Nr- Okhla Bird Sanctuary Metro Station











PRIVACY REDEFINED INSTANTLY



ROYAL TINT | ABOUT US

We are manufacturers of switchable glass and experts in switchable film technology. Our company is based in Ahmedabad, with branch offices in Mumbai, Bangalore, and Delhi. Since our establishment in 2016, we have been committed to providing high-quality products and services to our customers.

Our team consists of experienced professionals dedicated to understanding your needs and providing customized solutions. We offer a variety of products, including window films, glass coatings, and architectural films, all designed to enhance the appearance and functionality of your glass surfaces.

Our vision is to become the leading provider of exclusive glass solutions in India. We are committed to achieving this by delivering innovative and high-quality products that meet our customers' needs and exceed their expectations.

Trusted by industries worldwide, our expertise drives success and innovation.

Renowned and respected across various industries, our unwavering commitment to quality and customer satisfaction has earned us the trust of leading businesses, ensuring their success and growth. Our Team has technically sound and professional that simplify technology, love to solve problems and focus on continual improvement every day.

TRUSTED BY INDUSTRY





























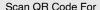






Who we Are

At Royal Tint, our strategy focuses on delivering value to our customers by providing customized glass solutions tailored to their specific needs. To achieve this, we have established a team of experienced professionals dedicated to delivering exceptional customer service and technical expertise









Manufacturing Facility







FOUNDATION OF ROYALTINT



2016

- Market Research and Planning
- Product Introduction
- Launch Adhesive & Non-Adhesive Switchable Film variant



2018





- Auto Cutting Machine Induction
- Switchable Glass Special Machine
- Switchable Film variant Expand
- Strengthen Operations

SCALING UP



2021

- Participation in Exhibition
- Branch Office Introduce in Delhi & Mumbai
- Switchable Glass manufactuing Unit Expand
- EU Standard Facilites On-roll



2023





- Enlarge capacity of SF/SG Production
- Introduce SF Product Spain / Japan
- Branch office expand in Bangalore









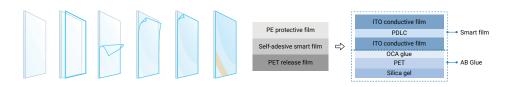
- International Organization for Standardization 9001:2015
- Water Resistance
- Certifies That A Product Has Met Safety, And Environmental Requirements



SWITCHABLE SMART FILM

Switchable films are also commonly referred to as smart films, smart glass films, electrochromic films, or switchable privacy films. The advantage of switchable films is that they eliminate the need for blinds, shades, or window treatments.

Switchable films can also function as projection screens for advertising, suitable for rear views. These films are utilized in a variety of applications, such as homes, businesses, cars, and airplanes, to provide energy efficiency, privacy, and glare reduction.



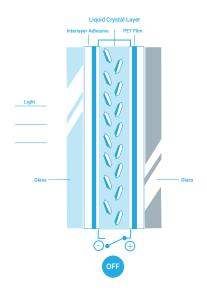
| Product Size | | Switchable Smart Film | |
|---------------------|--|------------------------------------|--|
| | Total thickness(without protection film) | 0.47mm | |
| | PDLC | 0.38mm | |
| Thickness | AB glue | 90µm | |
| | PE protection film | 35µm | |
| | PET release film | 50µm | |
| Sheet | Width | 1000,1200,1500,1800(mm) | |
| Sileet | Length | According to customer requirements | |
| Roll | Width | 1020,1220,1520,1850(mm) | |
| | Length | 50m/Roll | |

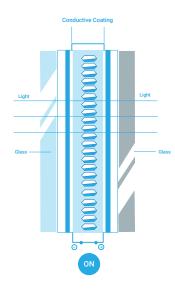
| Photoelectric Performance | | | Switchable Smart Fi | |
|---------------------------|--------|-----------------|---|--|
| Items | ON/OFF | | Test Methods/Standards | |
| Opearating voltage | ON | 60V | Multimeter/voltage Regulator,WGW | |
| Power consumption | ON | ≤ 5W/m² | Multi-parameter electric measuring instrument | |
| Viewing angle | ON | ≥ 160° | Visual Inspection | |
| UV blocking rate | OFF | ≥ 99% | Optical transmittance teaster | |
| Infrared blocking rate | OFF | ≥ 60% | option transmittance toucter | |
| Response time | OFF→ON | ≤ 30ms | Liquid crystal parameter integrated tester | |
| mesponse time | ON→OFF | ≤ 200ms | Liquid Crystal parameter integrated tester | |
| Operating temperature | - | -30°C ~ 95°C | Constant temperature and humidity testing | |
| Lifetime | - | 10 years | GB18910.5 - 2008 | |
| Switching times | - | 1 million times | Self-made on/off tester | |

| Product Parameters | | 86% Premium | 89% Ultimate | 92% Max (Spain Product) | |
|---------------------------|---------|-------------|--------------|----------------------------|--|
| Haze (ON) | | <3.8% | <3.2% | <2.2% | |
| Haze (OFF) | | 95.6%±1 | 95.6%±1 | 96.6%±1 | |
| Total light transmittanc | e (ON) | 86% | 89% | 92% | |
| Total light transmittanc | e (OFF) | 78%-79% | 67%-73% | 69%-75% | |
| UV block | | ≥99% | ≥99% | ≥99% | |
| IR block (OFF) | | ≥60% | ≥60% | ≥60% | |
| Switching speed | OFF→ON | >10ms | >10ms | >30ms | |
| Switching speed | ON→OFF | >200ms | >200ms | >300ms | |
| Power consumption | | ≤5W/m ² | ≤5W/m ² | ≤5W/m ² | |
| Voltage | | AC60V | AC60V | AC60V | |
| Operating temperature | | = | -30°C ~ 85°C | -30°C ~ 85°C | |
| Viewing angle | | >140: | >140: | >140: | |

ROYAL TINT | SWITCHABLE FILM

ABOUT SWITCHABLE FILM





The Royal Tint Switchable Film Series refers to an innovative film technology that can transform transparent surfaces, such as glass, into opaque or translucent surfaces at the flip of a switch.

This technology works by utilizing a layer of liquid crystal molecules that change their orientation when an electric current is applied, allowing the film to switch between transparent and opaque states.

The Switchable Film Series is available in different varieties, such as self-adhesive films and retrofit films. New generations of smart films include options with low haze and various colors, including milky white, grey, blue, black, and yellow





Privacy & Security

To protect your privacy and security, you can control the film to be transparent or opaque at any time. Make your space more versatile by choosing between open or private



Energy Efficiency

Switchable Films can be used to reduce energy consumption controlling the amount of heat and light that enters a Area.



(((●))) Anti-noise

Compared with ordinary glass, the anti-noise ability of glass using royal tint Switchable Film is Increased by 20%.



Cooling & UV Protection

Switchable films can regulate the amount of heat and light entering a building, reducing energy consumption and saving costs on heating and cooling systems.



Protection & Entertainment

Excellent image effects will be achieved Watch movies through a high-definition projector that enables multi-touch to the film.



Various Control Methods

In order to meet your various needs, you can choose your preferred control method: remote control, wired control, etc.





GREY SWITCHABLE FILM

The Grey Switchable Film Series offers solar control and privacy. The switchable film variant known as grey colour switchable film has a grey hue when it is opaque. This tint can improve privacy and minimise glare in a room while still letting in some natural light.





Product Size Grey smart film

| Total thickness(without protection film) | 0.38 mm | |
|--|--|--|
| Conductive substrate (single layer) | 188µm | |
| Protective film (single layer) | 35µm | |
| Width | 1200,1500mm | |
| Length | According to customer requirements | |
| Width | 1250, 1550mm | |
| Length | ≤ 50m/RoII | |
| Inner Diameter | 6 inches | |
| | Conductive substrate (single layer) Protective film (single layer) Width Length Width Length | |

Photoelectric Performance

Grey smart film

| Items ON/OFF | | | Test Methods/Standards | | |
|------------------------|--------|-----------------|---|--|--|
| Opearating voltage | ON | 60 V | Multimeter/ Voltage Regulator,WGW | | |
| Power consumption | ON | ≤ 5W/m² | Multi-parameter electric measuring instrument | | |
| Viewing angle | ON | ≥ 160° | Visual Inspection | | |
| UV blocking rate OFF | | ≥ 99% | 0-1: | | |
| Infrared blocking rate | OFF | ≥ 60% | Optical transmittance teaster | | |
| D | OFF→ON | ≤ 30ms | | | |
| Response time —— | ON→OFF | ≤ 200ms | Liquid crystal parameter integrated tester | | |
| Operating temperature | | -30°C ~ 85°C | Constant temperature and humidity testing machine | | |
| Lifetime | | 10 years | GB18910.5 - 2008 | | |
| Switching times | | ≥2million times | Self-made on/off tester | | |

Product Transparency / Haze

Grey smart film

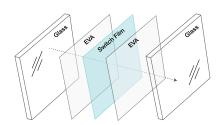
| Operating | | Full light tester | | | Parallel I | Parallel light tester | |
|---------------------|--------|-------------------|-----------------------------|---------|------------|-----------------------|--|
| ambient temperature | ON/OFF | Haze | Full light transmittance | b value | 45° light | Parallel light | |
| Law tamparatura | OFF | 93.0 | 36.0 | 0.5 | 1 | / | |
| Low temperature – | ON | 4.0 | 42.0 | -0.1 | 28 | 40 | |
| High temperature - | OFF | 93.0 | 36.0 | 0.5 | / | 1 | |
| | ON | 4.0 | 42.0 | -0.1 | 28 | 40 | |



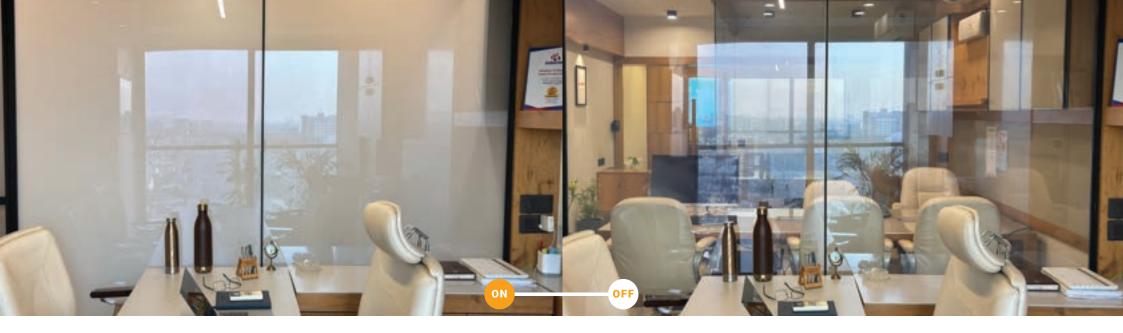
SWITCHABLE SMART GLASS

Switchable glass is a type of Smart Glass that use a liquid crystal film sandwiched between two pieces of glass to change the transparency of the glass by the application of voltage, light, or heat.

Due to its energy-efficient features and capacity to regulate temperature and light, smart glass has grown in popularity as a solution for contemporary architecture and interior design. It can be applied to many different things, such as windows, doors, skylights, and partitions.

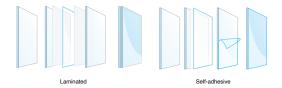


| Product Parameters | Smart Glass | Smart Glass | | |
|---------------------------|--|----------------|--|--|
| Film color | White | Other Colors | | |
| Haze (ON) | 4% <u>±</u> 1 | 4% <u>+</u> 1 | | |
| Haze (OFF) | 96% <u>+</u> 1 | 91% <u>+</u> 1 | | |
| Light transmittance (ON) | 84-86%, 87-89%, 91-92% | 33-35% | | |
| Light transmittance (OFF) | 77-78% | 1-2% | | |
| Uv block | >99% | >99% | | |
| Ir block | >86% | >70% | | |
| Power consumption | 5w/m² | 5w/m² | | |
| Imput voltage | 60v50hz | 60v50hz | | |
| Compatible with | Eva | Eva | | |
| Glass type | Flat or Curved, Annealted, Tempered, Clear, Law Iron/Ultra Clear, Othe | | | |
| Thickness | 4+4mm, 5+5mm, 6+6mm, 8+8mm, 10+10mm, 12+12mm | | | |
| Biggest size | 2100x3600mm | 1500x3600mm | | |



PNLC SMART FILM

PNLC smart film, also called adverse PDLC film. Different from normal PDLC smart film, the working principle of PNLC film is opaque-power on, clear power off.



| PE protective film |
|--------------------------|
| Self-adhesive smart film |
| PET release film |
| |





(Color and thickness do not represent the actual situation, only for the convenience of illustration)

Product Transparency / Haze

PNLC Smart Film

| | Operating | Fu | Full light tester | | | Parallel light tester | |
|-----------------|---------------------|--------|-------------------|-----------------------------|-----------|-----------------------|--|
| Product | ambient temperature | ON/OFF | Haze | Full light transmittance | 45° light | Parallel light | |
| PNLC Smart film | 1 | OFF | 7 | 90 | 80 | 85.0 | |
| | , | ON | 92 | 88 | / | 19.0 | |

Product Size

PNLC Smart Film

| Items | | | |
|-----------|--|------------------------------------|--|
| | Total thickness(without protection film) | 0.28mm | |
| Thickness | Conductive substrate (single layer) | 188µm | |
| | Protective film (single layer) | 35µm | |
| Sheet | Width | 1200,1400mm | |
| | Length | According to customer requirements | |
| Roll | Width | 1200,1400mm | |
| | Length | ≤ 50m/Roll | |
| Roll tube | Inner Diameter | 6 inches | |

Photoelectric Performance

PNLC Smart Film

| Items ON/OFF | | | Test Methods/Standards | | |
|------------------------|-----|------------------|---|--|--|
| Opearating voltage | ON | 60V | Multimeter/ Voltage Regulator,WGW | | |
| Power consumption | ON | avg 4-6W/m² | Multi-parameter electric measuring instrument | | |
| Viewing angle | ON | 160°+1° | Visual Inspection | | |
| UV blocking rate OFF | | ≥85% | Ontical transmittenes togetor | | |
| Infrared blocking rate | OFF | ≥60° | Optical transmittance teaster | | |
| Decrees time | ON | ≤200ms | | | |
| Response time —— | OFF | ≤200ms | Liquid crystal parameter integrated tester | | |
| Operating temperature | | -20°C ~ 85°C | Constant temperature and humidity testing machine | | |
| Lifetime | | 10 years | GB18910.5 - 2008 | | |
| Switching times | | ≥2 million times | Self-made on/off tester | | |

BLACKOUT SWITCHABLE GLASS

Royal Tint's BlackOut film is Japan made.

It features a black tint that reduces the amount of incoming light by 86% while maintaining exceptional transparency in its 'ON' mode.

ADVANTAGES OF BLACKOUT FILM



COMPLETE PROTECTION FROM THE SUN GLARE



86% VISIBLE LIGHT IN FULL TINT MODE



MINIMAL ENERGY CONSUMPTION

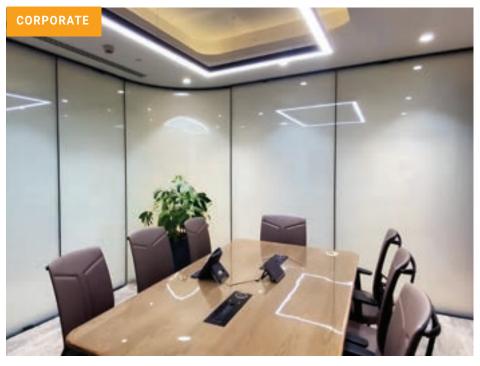
MORE ABOUT BLACKOUT FILM

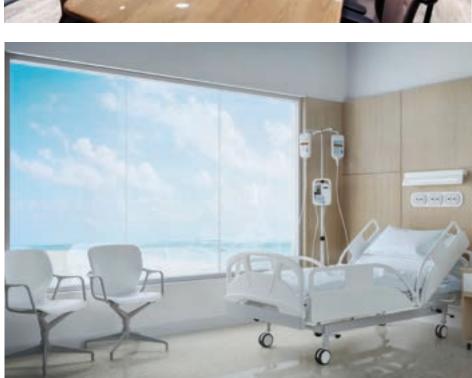
BlackOut Film groundbreaking technology enables you to instantly transform a single space into various atmospheres with a simple button press. Additionally, Black Out effectively blocks 98% of the harmful UV rays that can lead to the deterioration of your furniture, carpets, and artwork, safeguarding them from the sun's intensity and allowing you to bask in its natural light without compromising their longevity. BlackOut enables you to welcome the natural light from the outdoors or diminish it for a supremely tranquil environment. Thus, you can effortlessly invite the precise amount of light that suits your preferences.

Black Out empowers you to transform your space entirely. With the ability to customize the level of tint on your privacy glass, you gain full control over your space's ambiance.

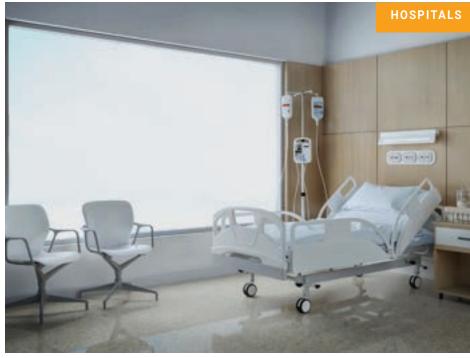


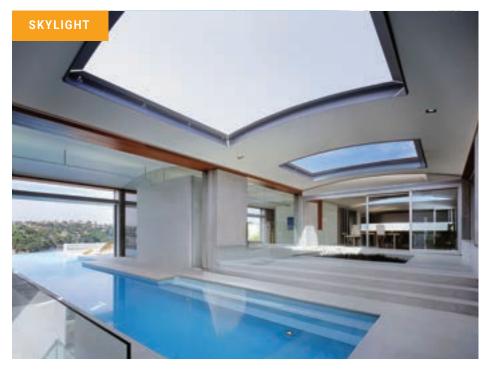
| Ite | m | Mode | Unit | Tolerance | Value |
|----------------------------------|----------------------|--------|--------|------------|----------------|
| | VLT | On | % | <u>+</u> 1 | 42.6 (AC 60V) |
| Optical | ٧٢١ | Off | % | <u>+</u> 1 | 5.3 |
| Performance | Haze | On | % | / | ≤5 (AC 60V) |
| | паге | Off | % | / | >92 |
| | Working Voltage | On | AC/V | 1 | 48~65(50/60HZ) |
| Electrical | Response | On-Off | ms | 1 | ≤200 (25°C) |
| Performance | Time | Off-On | ms | 1 | ≤10 (25°C) |
| | Power Consumption | On | W/m² | / | <5 (25°C) |
| Heat | TD | 1 | % | / | <0.1 |
| Shrinkage | MD | 1 | % | 1 | ≤0.4 |
| _ | • | On | / | 1 | Clear Black |
| Sta | itus | Off | / | / | Opaque Black |
| Thick | ness | / | μm | <u>+</u> 5 | 396 |
| Color difference (reflection) | | Off | CIELAB | / | ≤3.5 |
| Working Te | emperature | / | °C | 1 | -25~90°C |
| Storage Te | emperature | / | °C | 1 | -20~65°C |
| Storage | Humidity | / | % | 1 | 20~65 |



















REAR PROJECTION FILM

Royal Tint Rear Projection Film is a paper-thin screen material used to display video into glass and acrylic surfaces.

Royal Tint Rear Projection Film is compatible with any projector.

Royal Tint Offered many Colours option for Rear Projection Film Like White, light grey, dark grey, black, transparent. Rear Projection Films can be used in Offices, Schools, and business meeting Rooms. Each of Our Projection Films has got distinctive characters and comes in various types.

It has a water-activated adhesive base Product & is Compatible with any projector.

Type Matt

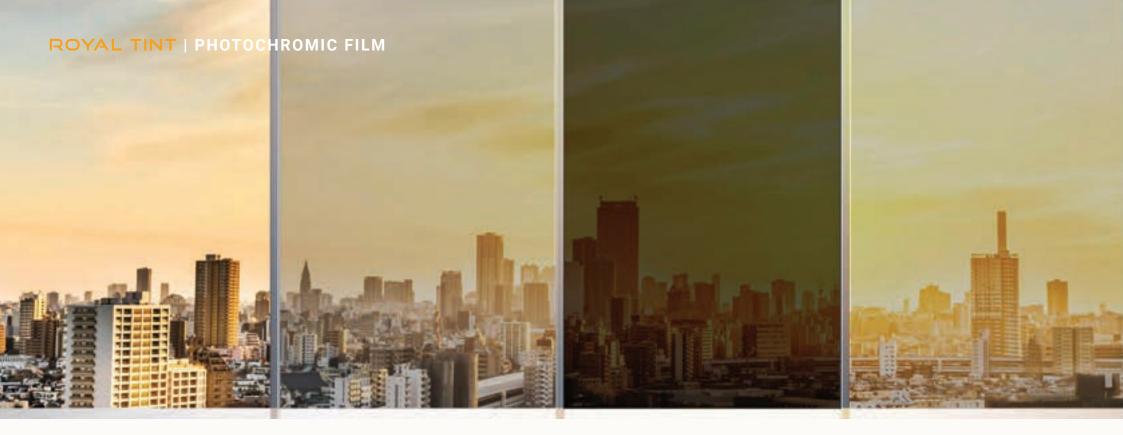
Application Glass/Acrylic

Raw material PET-Adhesive

Glue Acrylic transparent glue

Thickness 4 mil

Roll size 1.52*30m



PHOTOCHROMIC FILM

Royal Tint brings you a unique product to control sunlight. This film has created to work for both daytime and night-time.

The Photochromic film is used for windows glass & Vehical glass.

The photochromic film is a unique film it contain pigments that allow sunlight to make your windows darker in the daytime and then back to being very light at night-time.

Photochromic film reacts to the sunlight intensity and becomes darker to reduce the solar heat gain and glare. Photochromic non-electrified films provide automatic sunlight control all day long.

Blocks 99.9% of the Sun's UV Rays.

Blocks over 90%+ of the Sun's Infrared Heat transmitting through the glass which helps save on cooling costs, Reduces the sun's glare and provides more comfortable environmental view.

| | V70+ | V60+ | S70+ |
|--------------------------------------|----------|----------|----------|
| Thickness | 3 mil | 3 mil | 3 mil |
| VLT:Visible Light Transmission | 75%-30% | 69%-25% | 75%-23% |
| IR: Infrared Rejection | 86%-90% | 93%-95% | 86%-90% |
| VLR: Visible Light Refelection | 11% | 11% | 11% |
| UVR: Ultraviolet Rejection | 99% | 99% | 99% |
| TSER: Total Solar Energy Rejected | 61% | 67% | 57% |
| SHGC | 0.47 | 0.47 | 0.49 |
| SR Hardness | >2H | >2H | >2H |
| Roll Size | 1.52*30m | 1.52*30m | 1.52*30m |



DICHROIC FILM

Dichroic Films shift through a rainbow of colors from a change in light or movement. It is produced by stacking layers of glass and micro-layers of metals or oxides which gives the glass shifting color depending on the angle of view.

The shimering, color-shifting effect of the film is a magnificent addition to any space and is visible from both sides of the glas or product.

The film offers maximum flexibility of bend it, pattern it or apply it with different glass types of interlayer adhesive.

It can be applied on glass partition wall, interior-exterior glass to give the best artisitic view.

Type

Color

Application

Raw material

Glue

Thickness

Roll size

Glossy

Chameleon Blue / Red

Glass / Acrylic

PET - Adhesive

Acrylic Transparent Glue

2 mil

1.37*30m



FURNITURE PROTECTION FILM

It is a material designed for bright, reflective and fully transparent without changing the original colour of the furniture.

This product prevents furniture surface from scratches and damages. UV-proof to prevent furniture fading old.

This film material is self-adhesive which is applied to remove the back protection layer.

We are able to provide you variety of segment of this film which is relevant to microns difference.

Type

Color

Application

Raw material

Glue

Thickness

Roll size

Glossy / Matt

Transparent

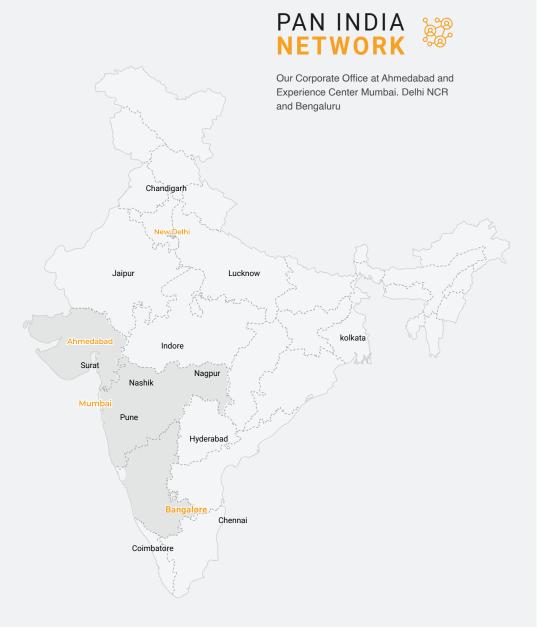
Marble / Corien / Furniture

PET - Adhesive / PU - Adhesive

Acrylic Transparent Glue

2 mil I 4 mil I 6 mil

1.52*30m



| NOTES: | ROYAL TINT |
|--------|------------|
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