

the incredible world of surface protection

NEXT-GEN REAL ESTATE: ASSET PROTECTION WITH NANOCOATINGS

**Top Nano-Coatings for
Residential,
Commercial and
Healthcare Facilities**

Lotus Nano
WE COAT
SUSTAINABILITY



Lotus Nano

You'll just love it!

Welcome to the endless uses of nanocoatings in Real Estate.

Nanocoatings are a 21st Century technology that can help to protect and preserve buildings and structures for many years to come. From exteriors to interiors, and from structures to assets, nanocoatings can provide long-lasting protection and easy maintenance.

Durability: One of the key benefits of nanocoatings is their durability. Nanocoatings can withstand the elements for many years, protecting your precious building exteriors, interiors, and structures from weathering, UV radiation and temperature changes. This means that your real estate assets will be preserved for many years to come and always look its best.

Weather Resistance: Nanocoatings are also highly weather resistant. They can protect building exteriors and structures from rain, snow, and other forms of precipitation, as well as UV radiation and temperature changes. This helps to prevent damage and deterioration over time, which can help to extend the life of the building or structure, making it more valuable.

Easy Clean/Maintenance: Nanocoatings are also easy to clean and maintain, which can help to keep your real estate assets looking their best for longer periods of time. This can help to increase the value of the property, and attract more potential buyers or renters.

Sustainability: Nanocoatings are a sustainable solution for protecting real estate assets. They require minimal amounts of coating to be applied with near zero waste and environmental impact. And most importantly, surfaces coated with nanocoatings require a lot less resources, such as water and cleaning agents, to maintain their appearance and longevity, leading to a more sustainable property.

Aesthetics: Nanocoatings can be used to enhance the appearance of buildings and structures, creating a sleek and modern look that can increase the appeal of the property.

Versatility: Nanocoatings can be used on various surfaces, including metal, concrete, wood, and glass, making them a versatile solution for protecting and preserving a wide range of real estate assets.

Antimicrobial properties: Nanocoatings can also be formulated with antimicrobial properties that can help to prevent the growth of bacteria, mould, and other microorganisms on the surfaces of buildings and structures. This improves indoor air quality and reduces the risk of illness and infection. Additionally, antimicrobial nanocoatings can help to prevent the buildup of odours and stains, making the property more pleasant to live or work in.

Cost-effectiveness: In the medium to long run, the use of nanocoatings can be very cost-effective as they can help to reduce the need for frequent repairs and maintenance, reduce cleaning time and resources and can increase the value of the property.

Safety: Nanocoatings can be used to improve the safety of buildings and structures, for example by providing slip-resistance and anti-bacterial properties.

Customisation: Nanocoatings can be customised to meet the specific needs of a building or structure, and can be applied in various thicknesses and colours and in combinations with other paints and coatings to achieve a desired outcome.

Interested in learning more? Reach out to **Lotus Nano!** We are a producer-independent start-up in Pune, India, staffed with real Nanotech experts who know what they do.

Professional Nano-Coating Advise. Procurement. Turn-Key Application. Quality Assurance. India-wide.

More publications including **why you really want experts to nano-protect your surfaces** [here](#):



LOTUS-NANO.COM

Lotus Nano
WE COAT
SUSTAINABILITY

glossary

COMMON TERMS IN NANOTECH



NANO

/næn.əʊ-/

one billionth of a stated unit. Here:
E.g.: 0.000,000,001 of a meter

NANOTECHNOLOGY

/,nanə(ʊ)tɛk'nɒlədʒi/

The science and technology to understand and control matter at dimensions between approximately 1 and 100 nanometers, where unique phenomena enable novel applications.

HYDROPHOBIC

/hɪdrə(ʊ)'fəʊbɪk/

latin: fear of water. Hydrophobic is a property of a substance that repels water. Lacks affinity for water, and tending to repel or not to absorb water.

HYDROPHILIC

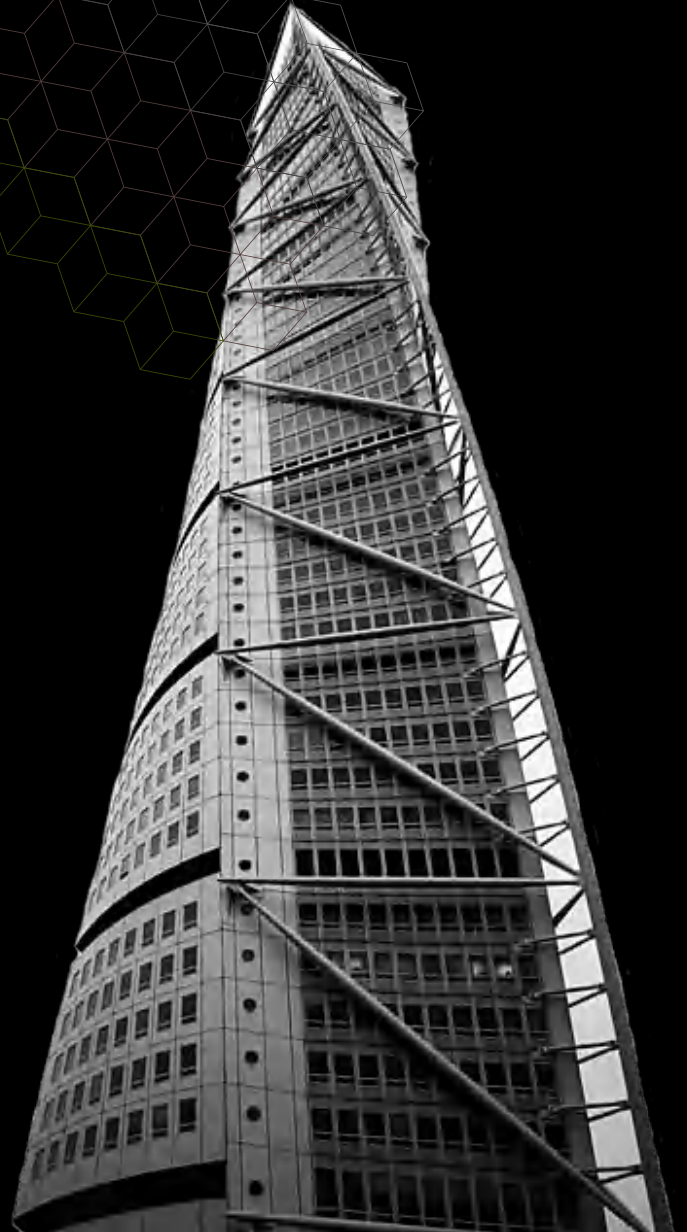
/,hɪdrə(ʊ)'fɪlɪk/

latin: love for water. Hydrophilic refers to having a strong affinity for water. Something that is hydrophilic is soluble in water and dissolves into water very easily. Hydrophilic is the opposite of hydrophobic.

OLEOPHOBIC

\-'fō-bɪk\

latin: fear of oil/fat. Physical property possessed by a material that is characterised by a lack of affinity to oils. Oleophobic materials are resistant to the penetration or adhesion of oils and fats. Such materials are often used in the production of corrosion preventive coating substances.



RESIDENTIAL



Room-by-room breakdown of potential applications for nanocoatings in a typical family house, villa or apartment

Living Room:

- **Flooring:** Nanocoatings can be applied to hardwood, tile or carpet flooring to increase durability, resistance to stains, and make cleaning easier.
- **Furniture:** Sofas, chairs, tables, and other furniture can be coated to increase durability, resistance to stains or fire, and to make cleaning easier.
- **Windows:** Applying nano coating to windows can increase energy efficiency, reduce glare and smudging, and increase resistance to scratching. Easier to Clean.
- **Glass Surfaces:** Applications on items such as coffee tables, mirrors, and display cases can make them easier to clean and maintain, and also keep them looking new for longer.

Kitchen:

- **Countertops:** Applied to countertops can increase durability, resistance to stains, humidity, mould, germs, and makes cleaning a breeze.
- **Cabinets:** Applied to cabinets increases durability, resistance to humidity, scratches and discolouration, and make cleaning easier.
- **Appliances:** Applying nano coatings to appliances such as refrigerators, ovens, and dishwashers can increase durability and resistance to scratches and stains and germs (outside as well as inside)
- **Flooring:** Nanocoatings can be applied to hardwood, tile or linoleum flooring to increase durability, resistance to stains, and make cleaning easier.
- **Glass Surfaces:** such as oven doors, microwave doors, and etc can make them easier to clean and maintain, and also keep them looking new for longer.

Bathrooms:

- **Countertops:** Applied to countertops can increase durability, resistance to stains, and make cleaning easier.
- **Showers / Bathtubs:** Nanocoating applied to shower and bathtub surfaces can increase durability, resistance to stains, and make cleaning easier.
- **Toilets:** A nano coating applied to toilets can increase durability, resistance to stains and make cleaning easier. Reliably protects from germs.
- **Flooring:** Nanocoatings can be applied to tile, linoleum, or vinyl flooring to increase durability, resistance to stains, and make cleaning easier and faster.
- **Walls:** A nano coating applied to walls can make them resistant to stains and easier to clean.
- **Glass Surfaces:** Applied on shower doors, mirrors, and other glass surfaces can make them easier to clean and maintain, and also keep them looking new for longer.

Bedrooms:

- **Flooring:** For hardwood, tile or carpet flooring to increase durability, resistance to stains, and make cleaning easier.
- **Furniture:** Bed frames, nightstands, dressers, and other furniture can be coated to increase durability, resistance to stains, and make cleaning easier.
- **Windows:** Increase resistance to scratching and enjoy cleaner windows for longer and easy cleaning when it is time to do so.

RESIDENTIAL



Room-by-room breakdown of potential applications for nanocoatings in a typical family house, villa or apartment

Bedrooms (contd) :

- **Glass Surfaces:** Applying nano coating to glass surfaces such as mirrors and other glass surfaces can make them easier to clean and maintain, and also keep them looking new for longer.
- **Mirrors:** Can be coated such that they do not fog up any longer after a shower or bath.

Garage:

- **Floor:** Applying a nanocoating to the concrete or tiled flooring will protect from stains, scratches, and wear and tear, as well as making it easier to clean.
- **Metal garage door:** A nanocoating applied to the metal garage door would provide protection against rust and corrosion, as well as making it easier to clean.
- **Wall and Ceiling:** Applications here would make them more resistant to humidity, mould, fungi, stains, scratches and dust, as well as getting a long-lasting easy to clean effect.

Outdoor:

- **Driveway:** A nanocoating applied to the driveway would protect it from stains, scratches, and wear and tear, as well as making it easier to clean.
- **Patio:** Applying a nanocoating to the patio would provide protection from stains, scratches, and wear and tear, as well as making it easier to clean.
- **Deck:** A nanocoating applied to the deck would provide protection against water damage, as well as making it easier to clean and maintain.
- **Fences:** A nanocoating applied to the fences would provide protection against water damage, as well as making them more easy to clean and maintain.

- **Outdoor furniture / artwork:** can be exposed to harsh weather conditions and can become discoloured, faded, and weakened over time. Typical coatings can include Antimicrobial, Self-cleaning, UV resistance, Water repellency, a.o.
- **External walls, facades, and other building envelopes:** Nanocoatings can provide protection against weathering and other environmental factors that can cause damage to building envelopes over time. Aesthetics: enhances the appearance of building envelopes, and can be formulated to provide a range of colours, textures, and finishes.

Attic / Cellar:

- **Cellars and attics** are areas that is often overlooked but are an important part of the house. Nanocoatings applied to the surfaces in the attic and cellar would provide superior protection against dust, moisture and condensation, mould, mildew, and dampness. This will make them considerably cleaner, safer and free of odours.

AC/Heating:

- **AC/Heating unit:** Protects from bacteria, viruses, dust, smells, mould, and mildew. Easy to clean and maintain, and prolong its lifespan.
- **Ducts/Vents:** Applying an antimicrobial nanocoating to the ducts will prevent the growth of mould and mildew, and ensure longevity.

Gym and Fitness Rooms:

- **Textile surfaces**, such as the exercise mats and upholstered seating, for improved stain resistance and easy cleaning, odour-neutralisation
- **Metal surfaces**, such as the weight machines and exercise equipment, for improved durability and resistance to corrosion

COMMERCIAL

PROPERTIES - EXAMPLE: OFFICE COMPLEX



Entrance and Lobby:

- **Glass surfaces**, such as the entrance doors and windows, for improved resistance to dirt, dust, water, and for easy cleaning.
- **Metal surfaces**, such as the door handles and stair railings, for improved durability and resistance to corrosion
- **Ceramic surfaces**, such as the floor tiles, for improved durability and easy cleaning
- **High traffic areas**, such as reception desks, waiting areas to protect from surface transmittable diseases

Conference Rooms:

- **Glass surfaces**, such as the partition walls and conference room table, for improved resistance to dirt, dust, water, and for easy cleaning
- **Wood surfaces**, such as the conference room table and chairs, for improved scratch resistance, longevity and easy cleaning
- **Textile surfaces**, such as the conference room chairs and curtains, for improved stain resistance and easy cleaning

Offices:

- **Glass surfaces**, such as the partition walls and office windows, for improved resistance to dirt, dust, water, and for easy cleaning
- **Metal surfaces**, such as the door handles and filing cabinets, for improved durability and resistance to corrosion
- **Wood surfaces**, such as the office desks and chairs, for improved scratch resistance and easy cleaning

Bathrooms:

- **Ceramic surfaces**, such as the sinks and toilets, for improved durability and easy cleaning
- **Glass surfaces**, such as the mirrors, for improved resistance to dirt, dust, water, and for easy cleaning

Elevators:

- **Metal surfaces**, such as the elevator buttons and handrails, for improved durability and resistance to corrosion

Kitchen and Break Room:

- **Metal surfaces**, such as the appliances and sink, for improved durability and resistance to corrosion
- **Ceramic surfaces**, such as the countertops and floor tiles, for improved durability and easy cleaning

Staircases:

- **Metal surfaces**, such as the handrails and stair treads, for improved durability and resistance to corrosion
- **Ceramic surfaces**, such as the stair treads, for improved durability and easy cleaning

Gym and Fitness Rooms:

- **Textile surfaces**, such as the exercise mats and upholstered seating, for improved stain resistance and easy cleaning
- **Metal surfaces**, such as the weight machines and exercise equipment, for improved durability and resistance to corrosion

Outdoor Areas:

- **Glass surfaces**, such as the windows of outdoor patios or terraces, for improved resistance to dirt, dust, water, and for easy cleaning
- **Metal surfaces**, such as the railings and outdoor furniture, for improved durability and resistance to corrosion

Parking Garage:

- **Concrete surfaces**, such as the floors and walls, for improved durability and resistance to oil, grease, and tire marks
- **Metal surfaces**, such as the stair railings and parking lot gates, for improved durability and resistance to corrosion

COMMERCIAL

PROPERTIES - EXAMPLE: OFFICE COMPLEX



Landscaping and Exterior Surfaces:

- **Concrete surfaces**, such as walkways and patios, for improved durability, longevity and resistance to stains
- **Stone surfaces**, such as walls, fountains and statues, for improved resistance to weathering and fading

Roof:

- **Metal surfaces**, such as the roof, for improved durability and resistance to corrosion
- **Concrete surfaces**, for improved durability and resistance to water damage

HVAC and Mechanical Rooms:

- **Metal surfaces**, such as the HVAC units and ductwork, for improved durability and resistance to corrosion

Data Center and Server Rooms:

- **Metal surfaces**, such as the servers and IT equipment, for improved durability and resistance to corrosion

Loading Docks and Warehouses:

- **Metal surfaces**, such as the loading dock doors and warehouse equipment, for improved durability and resistance to corrosion
- **Concrete surfaces**, such as the loading dock floors, for improved durability and resistance to oil and grease

Storage Rooms and Closets:

- **Metal surfaces**, such as the shelves and racks, for improved durability and resistance to corrosion
- **Wood surfaces**, such as the shelves and racks, for improved scratch resistance and easy cleaning

Auditoriums and Theatres:

- **Textile surfaces**, such as the seating and stage curtains, for improved stain resistance and easy cleaning
- **Wood surfaces**, such as the stage flooring and seating, for improved scratch resistance and easy cleaning

Swimming Pools and Spa areas:

- **Ceramic surfaces**, such as the pool tiles and spa surfaces, for improved durability and easy cleaning
- **Metal surfaces**, such as the pool ladders and handrails, for improved durability and resistance to corrosion

Security Rooms and Control Rooms:

- **Glass surfaces**, such as the control room windows and security monitors, for improved resistance to dirt, dust, water, and for easy cleaning
- **Metal surfaces**, such as the security cameras and control panels, for improved durability and resistance to corrosion

Maintenance Rooms and Utility Rooms:

- **Concrete surfaces**, such as the floors, for improved durability and resistance to oil and grease
- **Metal surfaces**, such as the equipment and tools, for improved durability and resistance to corrosion

Children's Play Areas and Daycare Rooms:

- **Textile surfaces**, such as the play mats and seating, for improved stain resistance and easy cleaning
- **Wood surfaces**, such as the play equipment and furniture, for improved scratch resistance and easy cleaning

Staff Rooms and Lounges:

- **Textile surfaces**, such as the seating and curtains, for improved stain resistance and easy cleaning
- **Wood surfaces**, such as the tables and chairs, for improved scratch resistance and easy cleaning

HVAC systems:

- **Coils and filters**, can reduce resistance to air flow, improve heat transfer and reduce the buildup of dirt and other contaminants. Improves indoor air quality by reducing the amount of pollutants and germs in the air

HOSPITALS

AND HEALTHCARE FACILITIES



Operating Rooms and Sterilisation Rooms:

- **Glass surfaces**, such as observation windows, for improved visibility, reduced glare, and easy cleaning
- **Ceramic surfaces**, such as countertops and sinks, for improved durability and easy cleaning and antimicrobial properties
- **Metal surfaces**, such as door handles, light switches, and other fixtures, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Floors, Walls & Ceilings** as below:

Patient Rooms:

- **Floors:** to improve durability, ease of cleaning, and provide an antimicrobial barrier. This helps to reduce the risk of infection and cross-contamination.
- **Walls:** to provide an easy-to-clean surface, improve durability and provide antimicrobial protection.
- **Ceilings:** to provide an easy-to-clean surface, improve durability and provide antimicrobial protection.
- **Textiles/Fabrics:** such as chairs, sofas to provide an easy-cleaning and antimicrobial barrier.
- **Furniture:**
 - **Beds:** frames and surfaces of beds and patient specific accessories to improve durability, ease of cleaning, and provide an antimicrobial barrier. This can help to reduce the risk of cross-contamination between patients.
 - **Chairs and tables:** to improve durability, ease of cleaning, and provide an antimicrobial barrier. This can help to reduce the risk of cross-contamination between patients.
 - **Cabinets and Drawers:** to improve durability, ease of cleaning, and provide an antimicrobial barrier.
- **Windows and Glass surfaces:** to improve visibility, reduce glare, and provide an easy-to-clean surface.
- **Bathroom fixtures:** Nanocoating can be applied to bathroom fixtures such as toilet bowls, sinks, and faucets to improve durability, ease of cleaning, and provide an effective antimicrobial barrier.

Laboratories and Pharmacies:

- **Ceramic surfaces**, such as countertops, sinks, and storage containers, for improved durability, easy cleaning, and antimicrobial properties
- **Metal surfaces**, such as door handles, light switches, and other fixtures, for improved resistance to corrosion, easy cleaning and antimicrobial properties

Hallways and Common Areas:

- **Flooring surfaces**, such as tile and linoleum, for improved durability, easy cleaning, and antimicrobial properties
- **Handrails and banisters**, for improved grip and easy cleaning

Cafeteria and Kitchen Areas:

- **Stainless steel surfaces**, such as kitchen equipment and appliances, for improved resistance to corrosion and easy cleaning
- **Countertops**, such as those made of granite or marble, for improved durability and easy cleaning

Elevators and Stairwells:

- **Metal surfaces**, such as walls, handrails and elevator buttons, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Flooring surfaces**, such as tile and linoleum, for improved durability and easy cleaning

Outdoors

- **Metal surfaces**, such as handrails, seats, and fences, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Glass surfaces**, such as outdoor lighting fixtures, for improved visibility, longevity, and easy cleaning
- **Flooring surfaces**, such as walkways and driveways, for improved durability and easy cleaning
- **Wooden surfaces**, such as benches, chairs and tables, etc. for longevity, to protect from UV

HOSPITALS

AND HEALTHCARE FACILITIES



Physical Therapy Rooms:

- **Flooring surfaces**, such as tile, linoleum and rubber matting, for improved durability, easy cleaning and antimicrobial properties
- **Metal surfaces**, such as weight machines and exercise equipment, for improved resistance to corrosion, easy cleaning and antimicrobial properties

Administrative and Staff Areas:

- **Glass surfaces**, such as office partitions and windows, for improved visibility, reduced glare, and easy cleaning
- **Metal surfaces**, such as door handles, light switches, and other fixtures, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Furniture**, such as desks and chairs, for improved scratch resistance, easy cleaning, and antimicrobial properties

Loading Docks and Service Entrances:

- **Metal surfaces**, such as loading bay doors and service doors, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Flooring surfaces**, such as concrete, for improved durability and easy cleaning

Boiler Rooms and Mechanical Rooms:

- **Metal surfaces**, such as boilers, HVAC systems, and ductwork, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Floors**, for improved durability and easy cleaning

Parking garages

- **Flooring surfaces**, such as concrete, for improved durability and easy cleaning
- **Metal surfaces**, such as handrails, seats, and fences, for improved resistance to corrosion, easy cleaning and antimicrobial properties

Exteriors

- **Glass surfaces**, such as skylights, for improved visibility, reduced glare, and easy cleaning
- **Metal surfaces**, such as roofing, gutters, and downspouts, for improved resistance to corrosion, easy cleaning and to protect assets from mould etc.
- **All surfaces exposed to** rain, wind, snow, and sun for durability, easy cleaning.

Public Bathrooms and Restrooms:

- **Ceramic surfaces**, such as toilets, sinks, and shower stalls, for improved durability, easy cleaning and antimicrobial properties
- **Metal surfaces**, such as faucets, soap dispensers, and towel dispensers, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Floors**, for improved durability and easy cleaning

Lobbies and Reception Areas:

- **Glass surfaces**, such as reception desks and windows, for improved visibility, reduced glare, and easy cleaning
- **Wood surfaces**, such as reception desks and furniture, for improved scratch resistance, easy cleaning, and antimicrobial properties

Medical Equipment Rooms:

- **Metal surfaces**, such as medical equipment and storage racks, for improved resistance to corrosion, easy cleaning and antimicrobial properties
- **Floors**, for improved durability and easy cleaning

HVAC Systems:

- Improves overall performance and energy efficiency. Applied to the surfaces of HVAC components such as coils and filters, can **reduce their resistance to air flow, improve heat transfer and reduce the buildup of dirt** and other contaminants. Improves **indoor air quality** by reducing the amount of pollutants and germs in the air. **Reduces noise** from the HVAC system, which is particularly important in healthcare environments.



**NANOTECH CAN SOLVE MANY REAL ESTATE RELATED CHALLENGES.
HERE'S HOW WE ASSIST OUR CLIENTS EVERY STEP OF THE WAY**

0

INDEPENDENT ADVISE, CONSULTING, FREE TRIALS

We make sure we first understand you and you understand how Nanocoatings may impact the way you currently work. We run complimentary product trials to determine what works best for you.

1

PROCUREMENT OF HIGH QUALITY NANO MATERIALS:

Nano enabled products we specify are of top quality and pure, sourced from reputable manufacturers and in compliance with current government regulations. We support the Make-in-India initiative for sustainability and prioritise Indian sources if they meet all criteria.

2

PROPER SURFACE PREPARATION:

We make sure the surface to be coated is properly cleaned and conditioned to ensure that the nanocoating adheres properly and provides the desired performance.

3

TRIALS TO CONFIRM COMPATIBILITY AND EFFECTIVENESS

We conduct trials to verify the compatibility of specified nanocoating products with your substrate, ensuring proper adherence, performance, and avoiding any harm or degradation.

4

SAFE, PRECISE, AND EFFICIENT APPLICATION:

We provide safe and efficient application of nanocoatings using industry standard methods, techniques, and equipment for uniform coverage and thickness, or teach you how to do so.

5

OPTIMAL DRYING AND CURING:

The drying and curing stage is critical to the success of the nano-coating. We carefully monitor, control and optimise the process to achieve top results as quick as possible (mainly for industrial clients)

6

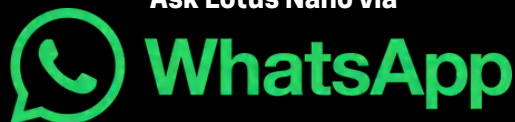
Post-Application Care and Maintenance:

Coated surfaces require different maintenance than uncoated ones. We assist in optimising cleaning practices and resources to keep your coated surfaces performing at their best for a longer period.

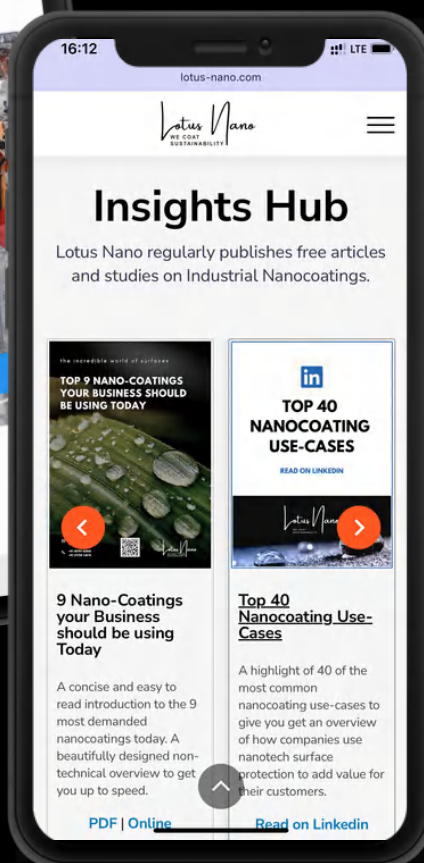
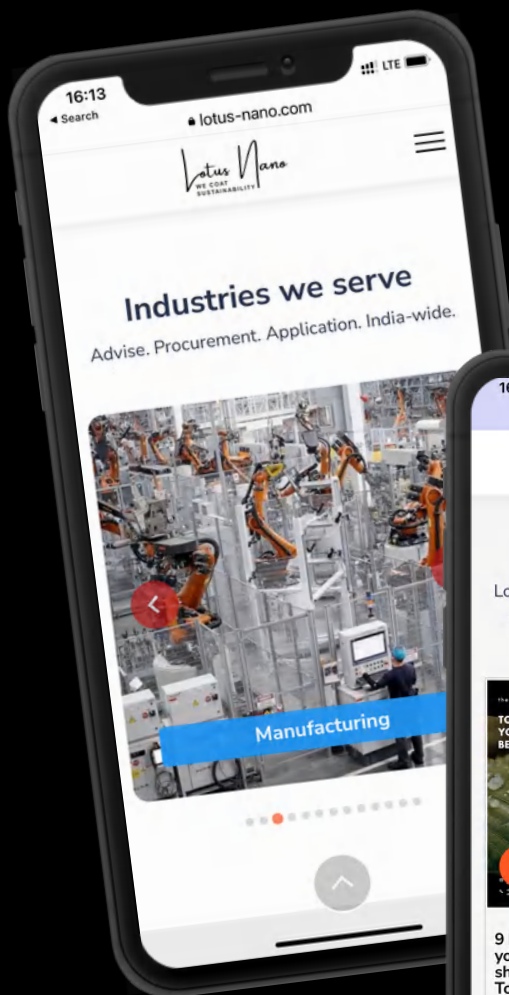
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Please Note: Attempting to purchase and/or applying nano-enabled products without proper knowledge and training can result in unintended consequences, including harm to life, the environment, and your assets. We strongly advise consulting with our experts before making any decisions related to Nanocoating.