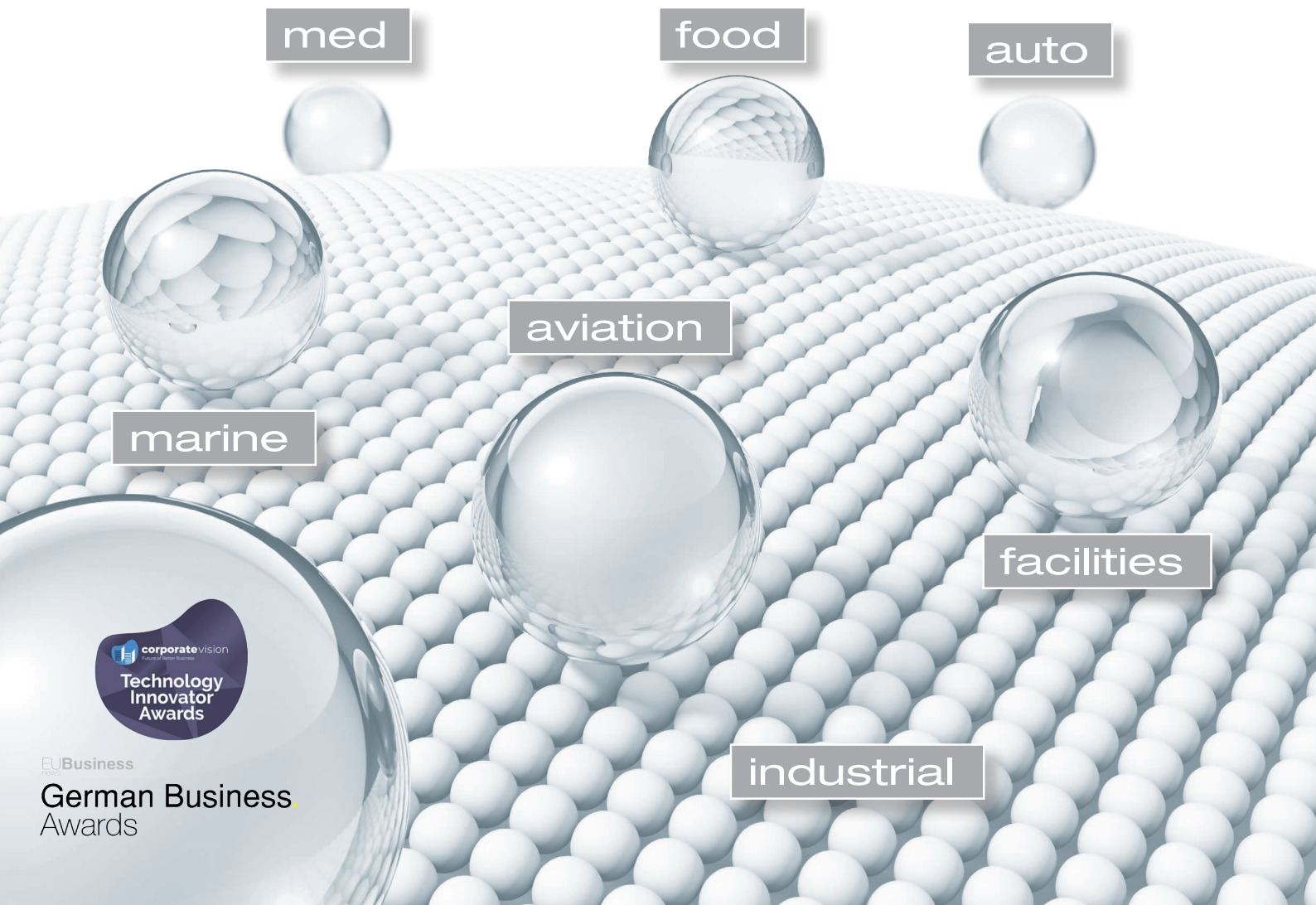
CCM®

Creative Chemical Manufacturer

Liquid Glass Coatings

Clean. Coat. Protect.



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About CCM® Liquid Glass

Liquid Glass is an exceptional, truly remarkable, multi-award winning technology which allows the end user to protect both industrial and domestic surfaces with ultra-thin super durable coating of invisible, easy to clean, glass.

In essence the technology allows the end user to deposit a nano scale layer of molecular, particle free glass (500 times thinner than a human hair), onto the surface of most items. The molecules of glass (silicon dioxide/SiO^2) come from pure quartz sand, of which there are vast reserves, as silicon dioxide is one of the most abundant compounds on the planet. Just like domestic glass the coatings are chemically inert and highly resistant to commonly used cleaning chemicals. The coatings also offer resistance to alkalis, acids and solvents; however, despite some similarities to standard glass the Liquid Glass coatings are stunningly different. The layer is flexible, breathable, highly durable, heat tolerant, anti-microbial and offers non-stick and "easy clean" characteristics. The application of the Liquid Glass range of products is amazingly straight forward. After preparatory cleaning, items such as wash basins, windscreens, and fabrics can be coated in a matter of seconds. Significantly most coated surfaces can be cleaned with water alone, this of course massively reduces the use of environmentally damaging cleaning products.

The owners of CCM have been involved with the development and marketing of Liquid Glass technology since 1999 and as a result we offer unrivalled experience in the supply, packaging and worldwide distribution of this technology. We are currently support projects in over 60 countries.

Liquid Glass technology - The story so far!

It all started in Paris in 1845, when J.J. Ebelmen, a French scientist first discovered the Sol Gel process. In simple terms, he discovered that by manipulating a liquid which contained silica he could create glass. This was a very interesting theoretical discovery but at this time all that he was left with was small lumps of glass which were of no specific use. The next major step came in 1939 when the Schott Glaswerke company of Germany started to re-examine the technology. After a further 20 years of research they started to produce the first items coated with SiO^2; however the processes were still complex and expensive. Evidently continued R+D was called for! Whilst the world was focussing on the space race, the computer revolution and the genome projects, the scientific community in Germany was creating "Liquid Glass Technology" which could be applied on a DIY basis. The target being, to produce an undetectable coating, which could protect and enhance almost any surface. At the start of the millennium such coatings became available for the first time and we are proud to say that we were involved in their launch to a wide range of markets.

A.L.G.T. (Advanced Liquid Glass Technology). It has now been over 150 years since the discovery of the Sol Gel process and advances are continually being made. We are now able to bring you the 3rd Generation of Liquid Glass Technology via which we offer more efficient coatings, at reduced cost to the consumer. We also develop new technologies and technical coatings which are in the micron scale. These are used in a wide range of demanding environments, such as the marine, auto and aviation sectors. In essence A.L.G.T. is the culmination of 150 years of development. Where will be in another 150 years? Obviously we do not know the answer to this question... but we do know that we offer state of the art technology for the world of today.

*Silica (silicon dioxide or SiO^2) is one of the most common chemical compounds.

OUR PRODUCT SECTORS

The following areas of application represent the main divisions within our organisation. The simple message is "we can protect almost everything".

SiO^2, ultra thin coating technology has been described as "one of the world's most versatile technologies"; and when you consider that it is easy to apply, heat tolerant, flexible, breathable, highly durable, environmentally friendly, chemically inert, food safe, low cost and anti-bacterial, you can see why this comment has been made. SiO^2 has been used as a food additive for many years.

food

It is commonly used in products such as toothpaste, ketchup and beer; however we now find that its greatest value to the food industry is when it is used as a surface coating. Surfaces which are coated with SiO^2 offer anti-sticking, easy clean, stain proofing and biostatic characteristics. SiO^2 coatings have already been evaluated by leading food manufacturers. As SiO^2 is inherently food safe and inert, it provides the ideal coating for food production plants, butchery departments, storage vessels, kitchen implements and food handling surfaces. Many of our coatings are certified as food safe.

industrial

We are contacted on a daily basis by companies wishing to know if an SiO^2 coating will be suitable for application to their product or general working environment. In essence our coatings can be applied to almost any surface, and in most instances we have an "off the shelf" solution to most requests; from Abattoirs to Zoological specimen protection, we can offer a coating. It should be stressed that not all of our coatings are at the nano scale. Some of our coatings are in the 10 micron range. A nano scale coating is ideal if you

Our Product Sectors

wish to coat optical lenses but if you wish to coat flooring in a supermarket then a thicker coating may be more suitable. In all instances our self application coatings are low cost and very easy to work with.

med SiO^2 coatings have been tested extensively in the UK medical sector and Neil McClelland, our Technical Director, has been responsible for promoting the use of SiO^2 coatings within the UK's National Health Service. He has presented extensively in the UK and was a guest speaker at the world famous IOM3 (Institute of Materials, Minerals and Mining). Testing has conclusively proven that SiO^2 coatings are of enormous significance to the health sector. In simple terms the coatings can be used to create environments in which the bio burden is massively reduced and coated surfaces are exceptionally easy to clean. SiO^2 coatings and our anti-pathogen technologies can be used on almost all surfaces within the Healthcare sector, this includes clothing, stethoscopes, surgical instruments, walls, floors, operating theatres, bedside tables, touch screens, mobile devices etc. There are literally hundreds of surfaces which can be coated within a hospital, dental surgery or similar environment.

facilities We offer coatings for railway stations, hotels, schools, shopping centres, supermarkets, escalators etc. Not only do we offer fantastic coatings for these facilities, but we offer coatings for almost all of the surfaces within the facility. From anti-graffiti coatings on the outside to anti-bac coatings for ATMs on the inside. We also offer a complete range of stone protection coatings. These easy to apply, water based, topographical coatings, which are of course highly durable and breathable, are suitable for use on floors, monuments, work surfaces and of course interior and exterior walls. They are available in coatings which range from 50 nm to approximately 10 microns. Much depends on what you wish to protect and how you need to protect it. Our graffiti protection coatings can offer protection for up to 50 removal cycles.

auto SiO^2 coatings are ideal for protecting cars and motorcycles. Alloy wheels become easy to clean and blemish free, as brake dust does not burn into the coating. Exterior body work and fuel tanks become protected by a glossy, easy to clean and abrasion resistant coating. Car seats become stain resistant and odours can be significantly reduced, especially if an anti-pathogen variant is used. Perhaps most significantly all of the windows can be coated with a highly durable and undetectable super-phobic coating which massively increases visibility when driving in heavy rain.

aviation SiO^2 coatings have already been tried extensively on private Business Jets. On interior surfaces the coatings have been used to protect carpets and fabrics against staining and wear, on galley surfaces to enhance the appearance and "cleanability". (Coated surfaces maintain an "as good as new" appearance). Our anti-pathogen coatings will of course allow the client to travel in an environment which is as clean as possible. On the exterior of the aircraft, SiO^2 coatings have been proven to be significantly more durable than the conventional coatings which are currently in use. We are now working through CAA approvals.

marine SiO^2 coatings have been tested on a wide range of vessels. The marine environment is of course very tough and our coatings have proven to offer excellent performance, and as ever the range of possible applications have proven to be enormous. On cruise liners expensive state room carpets can be protected as can all surfaces in kitchens restaurants, and bathrooms. Linen, bedding and soft furnishing become stain resistant. Bridge windows remain clearer in stormy conditions as sea salt does not burn into coated glass. Funnels do not become stained by exhaust deposits and so high standards of presentation are maintained. On pleasure craft, hulls can be protected against soiling and abrasion, soft furnishings can be protected against mould, galleys and heads can be coated with anti-pathogen protection.

We also provide a complete cleaning, protection and sanitation program which utilises, award winning cleaning technologies.

CPS
CLEAN PROTECT SANITIZE

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IN
GERMANY

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GREEN
APPLE
AWARD
WINNER

Pre-Cleaner BIOSATIVA® - Steam Cleaner in a Bottle

Steam cleaning in a bottle. The completely natural and biodegradable cleaning concentrate suitable for all surfaces.

PROPERTIES

- High-performance cleaner
- Created from sustainable natural ingredients
- Environmentally compatible
- Completely biodegradable
- Gentle to materials and surfaces
- Dermatologically harmless (skin-friendly, also suitable for allergy sufferers)
- Exceptionally strong cleaning action
- Non-corrosive
- Pollutant-free
- Solvent-free
- Non-toxic for humans, animals & environment
- No "hazardous goods" labelling necessary
- Non-dangerous goods
- Winner of the prestigious Green Apple Award. This International Environmental Award was presented to Biosativa® in recognition of it's status as Europe's most environmentally-friendly product
- Confirmed by DEKRA as „Suitable for use within the food sector"

Testing confirms that Biosativa® reinvigorates contaminated water and soil.

One cleaner for all cleaning needs.
Ecologically beneficial.

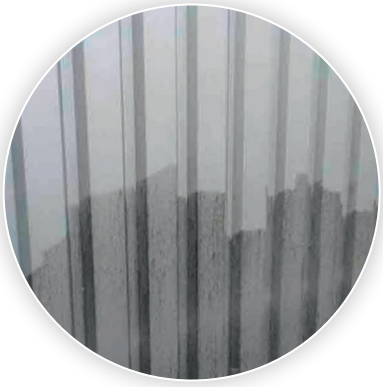
ATTRIBUTES

- Highly active cleaning technology, containing a unique bio-polymer, which is extracted from renewable raw materials
- The raw materials do not include palm oil
- Zero use of petrochemical components
- CO_2 neutral as Biosativa® is based on vegetable essences, proteins and natural oils (not an enzyme cleaner)
- Energy-saving production through condensation and use of concentrates
- Benefits from amphoteric charge (positive and negative charge)
- Due to the special polymer and charge structure a vast range of soiling agents are broken down
- Soiling agents are easily dispersed with water
- Vegan
- Without micro-plastics
- No genetically modified organisms

Art. No.	**Bottle / Canister**
BS2122-1	1 litre bottle (MOQ: 100 litre)
BS2122-10	10 litre canister
BS2122-IBC	1 000 litre IBC

HS Code: 3402 9010 90, no DG

BIOSATIVA®
CLEANING WITH THE POWER OF NATURE!






Pre-Cleaner BIOSATIVA® - Steam Cleaner in a Bottle

APPLICATION

INDUSTRY

Machines – apply with spray bottle, brush & cloth:
1:5 - 1:20

Buildings, facades, surfaces etc.:
1:10 to 1:100 (depending on soiling and surface technology)

Tyre abrasion from fork-lifts and other equipment on hall floors:
1: 5 spray, agitate the surface, allow to take effect and then remove residue.

BASIC CLEANING

Floors of all kinds (concrete, tiles, PVC, linoleum, epoxy, etc.):
1:5 - 1:100

Surfaces of all kinds in maintenance cleaning:
1:20 - 1:100

Soot and carbon materials – suitable for post-fire restoration:
1:5 - 1:30

Odour removal: Due to it's highly effective cleaning properties, Biosativa® aids the removal of bacterial accumulations, and as a result odours are also removed or greatly reduced

AUTOMATIC CLEANING

Floors and surfaces of all kinds:
1:20 - 1:100 (depending on soiling)

MARINE CLEANING

Ideally suited for cleaning all areas of a marine environment

KITCHEN CLEANING

Surfaces, stoves, floors, kitchen appliances:
1:5 - 1:50 (depending on soiling & technology)

HIGH-PRESSURE CLEANING

Up to 95°C using standard cleaning machines:
1:25 - 1:100

Usable on a wide range of heat-tolerant surfaces e.g. facades.

Removal of algae and other similar organic matter:
1:10 to 1:100

Carpets with spray extraction device:
1:20 - 1:80 (with warm water)

AGRICULTURE

Stables, livestock areas, silos, tractors, tools, greenhouses:
1:5 - 1:30

VEHICLE CLEANING

Manual application for inside and outside the vehicle with spray bottle, sponge, brush & microfibres:
1:10 - 1:30

DOMESTIC CLEANING

Thousands of uses around the home

EXAMPLES OF MIXING RATIOS

Boat Cleaning	1:20	Floor cleaning with cleaning machine	1:40	Pan cleaning	1:10
Car steam jet cleaning for engine compartments	1:30	Flooring (non-absorbant)	1:10	Petrol pumps and surrounding equipment	1:10
Concrete, stain removal	1:6	Glass cleaning	1:60	Plastic cleaning	1:10
Dishes and cutlery cleaning	1:20	Machine cleaning	1:10	Pressure water dispensing	1:60
Engine cleaning	1:10	Metal and stainless steel cleaning	1:10	Windows	1:100
Floor cleaning (manual cleaning with sponge or cloths)	1:20	Oven cleaning	1:10	Work Benches	1:10

Pre-Cleaner BLU1000 - High Quality Stainless Steel Cleaner

This product contain highly active cleaning agents and additives to thoroughly clean very contaminated, damaged, corroded or unsightly stainless steel surfaces. Cleaned surfaces often look as good as new, and sometimes better than new.

UTILIZATION

Interior and exterior surfaces of stainless steel, coatings (metallic, organic or inorganic) in industry, craft, food production and preparation, private and public sector (e.g. swimming baths, hospitals) and in the home.

Stainless Steel Special Cleaner BLU1000

It is used as a special cleaner in highly soiled, coated or corroded vessels within breweries. Ideal for stairways, handrails, railings, swimming baths, steel cladding, furniture etc..

BLU1000 can be used on other substrates, but it is optimised for stainless steel. Use on other substrates is at the users discretion.

APPLICATION

The product is applied with a special sponge and worked into the surface. The time required for application depends on the degree of contamination and surface condition. Ensure that stubborn stains are thoroughly treated with the special polishing pad or sponge. This will not affect the surface structure. After application remove any remaining residues by rinsing with water and then wiping dry.

CONSUMPTION

1 litre = 5 - 10 m²

The indication of product suitability and associated notes are based on our experience. Test product first for suitability.

PACKAGING & SHIPPING

Art. No.	**Bottle / Canister**
BLU1000-1	1 litre bottle
BLU1000-200	200 litre barrel
BLU1000-1000	1 000 litre IBC

HS Code: 3402 9010 90, no DG

7675 Duo Glass-Metal / 7678 (Conc.) & 673 Universal NA

Universal Coatings for non-absorbent surfaces (Glass / Ceramics, Plastics, Metal & Stainless Steel)

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
+5 to +50°C	200 - 250 m² (depending on the structure of the substrate)	Up to 2 years, depending on abrasion rates	12 - 18 months	+5 to +25°C	12 hours

Universal coatings are coatings which offer the same "very good" performance characteristics on every substrate. But for the highest level of performance we suggest the use of our „substrate specific" coatings. The universal coatings are perfect for consumers, easy to apply and very effective.

PROPERTIES

- Can be used on almost all non-absorbent surfaces
- Easy to apply
- Easy to clean
- Biostatic
- Treated surfaces remain clean for prolonged periods
- Adhesion of dirt and deposits is massively reduced
- Soiling is easily removed with water
- Water and other liquids pearl off easily
- Ideal for bathrooms, healthcare environments and public buildings
- Food safe, tested after EC legislation regulation 10/2011
- Colourless
- Layer thickness: approx. 100 nm
- Inorganic

PACKAGING & SHIPPING

Type	7675/7678	673
Ready-to-use	*7675-1* 1 000 ml bottle *7675-200* 200 litre barrel *7675-1000* 1 000 litre IBC HS code: 3208 9019, DG (VOC 99%)	*673-1* 1 000 ml bottle *673-200* 200 litre barrel *673-1000* 1 000 litre IBC HS code: 3208 9019, DG
Concentrate	Dilution Rate: 1:120 *7678-1* 1 000 ml bottle (1:120) *7678-200* 200 litre barrel *7678-1000* 1 000 litre IBC Needed alcohol: Isopropanol 100%; water content < 0,1 wt% HS codes: 3208 9091 + 2811 1980, DG (2 components)	Not available

APPLICATIONS

Application	7675 SiO^2 based	673 Silane-based
Glass / Ceramics	✔ ✔ ✔	✔ ✔
Plastics	✔ ✔	✔ ✔ ✔
Metal	✔ ✔	✔ ✔
Stainless Steel	✔ ✔ ✔	✔ ✔
Painted Surfaces / Car Paintings	✔ (cannot be layered)	✔ ✔ ✔ (can be layered)

ATTRIBUTES

Attributes (R2U)	7675	673
Alcohol-based	Yes	Yes
Application	Easy	Very easy
Odour	Nearly odour-free	Slight
Touch Dry	2 - 3 minutes	2 - 3 minutes
Surface Usable after	1 hour	20 minutes
Optimum Performance after...	24 hours	10 hours

QUALITY STANDARDS

Test	Description
TÜV, MSZ ISO 18593:2008	Microbiological Test
TÜV, MSZ 9640/41:1983	Scratch hardness test with spring ball rod
TÜV, MSZ EN ISO 15184:2013	Pencil Hardness Test
TÜV, Sessile Drop Method	Water-Repellent, surface tension, contact angles
TÜV, DIN 51 155	Impact Test
TÜV, ICP-MS MSZ EN ISO 17294-2:2005	Metal content of the wipes
TÜV, ICP-MS + XRF	RoHs screening test
ASTM D 3363	Wolf Wilburn Pencil Hardness Test
DIN EN ISO 15184	
BS 3900-E19	
DIN EX 13523-4	
ISO 10993-1	Biocompatibility Test
ASTM E 2180-07 (Reapproved 2012)	Assessment of Antimicrobial activity (ATCC 6538, 4352 & 15442)
ISO 9001	Anti-Bacterial Test
Martens, Vickers	Hardness Test on Mobile Phone Screens
	Radiation Test on mobile phone

695 Universal STW / 697 (Conc.) & 691 Universal Duo Textile-Stone / 692 (Conc.) & 687 Carpet Protect (Conc.)

Universal Coatings for absorbent surfaces (Stone, Textile & Wood)

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
+5 to +50°C	5 - 40 m² (depending on the structure of the substrate)	Up to 2 years	Up to 24 months, depending on the variant	+5 to +25°C	12 hours

Universal coatings are „easy to apply" coatings which offer the same "very good" performance characteristics on every substrate. But for the highest level of performance we suggest the use of our „substrate specific" coatings. The universal coatings are perfect for consumers, as they are DIY variants and highly effective.

PROPERTIES

- Aqueous, room temperature curing impregnation for textiles (PES, Cotton, PA and mixtures), stone & wood
- Exceptionally versatile, no odour.
- Can be applied to almost all absorbent surfaces
- Excellent performance
- Hydrophobic and oleophobic
- generates a nano scale film on the surface of the fabric fibres and filaments
- Reduces significantly the penetration of water, soot, coffee, cola, ketchup, red wine and other staining agents into the fibres
- The penetration of cooking fat, fuel, waste oil and dry soiling agents into the structure of the fibre is reduced and as a result many soiling agents can be easily removed
- Includes organo functionized silanes
- Water-based
- Optimised for highly absorbent mineral surfaces
- Reduces adhesion of micro-organisms
- Excellent acid and alkaline resistance (approximately 2-12 pH in diluted form)
- Coverage rate per litre: 4 - 40 m² (depending on the structure of the substrate), heavy carpets requires the application of more liquid than fine silk in order to effect a coating
- Durability of the coating: Up to 2 years in normal use e.g. domestic carpet with high footfall
- Offers contact protection for leather and fabrics. Soiling agents should be removed within 2 to 3 minutes to prevent staining
- Breathable (not suitable for protecting marble against acidic vapour!)
- Nano particle free
- No DG / VOC free
- Layer thickness approx. 20 - 200 nm
- Inorganic

further information

Video how to mix the concentrate

APPLICATIONS

Application	691/692/687	695/697
Stone	✔ ✔	✔ ✔ ✔
Wood	✔	✔ ✔ ✔
Textile	✔ ✔ ✔	✔ ✔

ATTRIBUTES

Attributes	691/692	695/697/687
Water-based	Yes	Yes
Application	Very easy	Very easy
Room curing	12 to 24 hours	12 hours
Fluoriated agent content	Fluorine C-6, PFOA free (below the declarable level)	PFOA and PFC free (below the declarable level)
Shelf Life of the Liquid	12 months	24 months
Concentrate	1:20-1:30	1:9 (for stone) - 1:14 (for textile)
Note		Don't use on white, low quality textiles

PACKAGING & SHIPPING

Type	691/692	695/697/687
Ready-to-use	*691-1* 1 000 ml bottle *691-200* 200 litre barrel *691-1000* 1 000 litre IBC HS Code: 3809 9100, no DG	*695-1* 1 000 ml bottle *695-200* 200 litre barrel *695-1000* 1 000 litre IBC HS Code: 3910 0000, no DG
Concentrate	*692-1* 1 000 ml bottle *692-200* 200 litre barrel *692-1000* 1 000 litre IBC HS Code: 3809 9100, no DG	*697-1* 1 000 ml bottle *697-200* 200 litre barrel *697-1000* 1 000 litre IBC HS Code: 3910 0000, no DG
	Not available	*687-1* 1 000 ml bottle *687-200* 200 litre barrel *687-1000* 1 000 litre IBC HS Code: 3910 0000, no DG

689 Rapid Tex, 7689 Dura Tex / 7685 (Conc.), 683 Rapido Leather & Fabric Protection / 688 (Conc.)

KEY FEATURES

Art. No.	Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
689 / 7689	+5 to +50°C	Up to 100 m², depends on the density/structure of the substrate	Up to 25 hand washing cycles (Heat cured industrial coating offers the highest level of washability)	24 months	+5 to +25°C	12 hours
683		3 - 10 m²				2 hours

We offer a wide range of water based textile, leather and paper coatings for slightly different uses. The coatings match the needs of those who seek DIY and industrial applications. The variants offered also range in performance levels, mixing ratios and drying times. Both products are available as concentrates.

PROPERTIES

- Creates water, oil and stain resistant fabrics
- Forms a long-lasting, transparent, ultra-thin layer
- High Hydrophobicity + Oleophobicity
- Strong anti-adhesive properties
- Excellent easy-to-clean effect with regard to dirt and liquids
- Fibres are protected against the ingress of dirt particles
- Environmental compatibility and food-safety
- Permanent and breathable
- UV-stable and temperature-resistant
- Bacteriostatic: creates an environment which inhibits microbial development
- Easy application
- Will not affect the appearance, breathability, colour and texture of the fabric
- Invisible to the human eye (coating thickness: 100-150 nm)
- No change to the hand / texture of the fabric
- Simple application (do-it-yourself)
- Resistant to domestic solvents and domestic acidic and alkaline cleaners
- Highly flexible up to 200% stretch
- Layer thickness: 60 - 170 nm
- 689 / 7689: Water-based
- 683: Alcohol-based, suitable for application to leather and fabrics. It penetrates rapidly in to leather and provides excellent hydrophobicity and olephobicity (superior to water based coatings). As the name suggests, this coating dries and cures rapidly. Coated leather can be cleaned with a damp cloth. Coated fabric can be gently soak washed. Re-application is quick and easy.

PURPOSE

- Clothing
- Home textiles (upholstery, furniture, carpets)
- Paper, cardboard
- Household textiles (pillows, furniture), carpets
- Suede/leather
- Mobile Phone bags

PACKAGING & SHIPPING

Ready-to-use			HS Code
1 000 ml bottle	**200 litre barrel**	**1 000 litre IBC**	
689-1 (1:19 from 685)	*689-200*	*689-1000*	3824 9992, no DG
7689-1 (1:9 from 7685)	*7689-00*	*7689-1000*	3824 9992, no DG
Concentrate			**HS Code**
1 000 ml bottle	**200 litre barrel**	**1 000 litres IBC**	
7685-1 (1:9 - 1:39)	*7685-200*	*7685-1000*	3824 9992, no DG
683-1 (1:25)	*683-200*	*683-1000*	3824 9992, no DG

QUALITY STANDARDS

Test	Description
ISO 11507	Artificial weathering with fluorescent UV lamps + water (method A)
DIN 55620-1+2	Determination the contact angle
DIN EN ISO 11998:2008	Determination of the wet-scrub resistance and cleanability of coatings
ECO PASSPORT	Oeko-Tex® Standard 100, product classes I - IV
DIN EN ISO 14419	Examination of oil resistance with help of hydrocarbons
CCM lab	Contact angle
IMO / ISO	Smoke and Toxicity Test

APPLICATIONS & ATTRIBUTES

Application	7689 DuraTex	683 Rapido Leather & Fabric	689 Rapid Tex
Textile	✔ ✔ ✔	✔ ✔ ✔	✔ ✔ ✔
Leather	✔	✔ ✔ ✔	✔
Suede	✔ ✔	✔ ✔	✔ ✔
Attributes (for ready-to-use liquid)			
Water-based	Yes	No, alcohol - based	Yes
Application	Spray	Spray	Spray
Room Curing	12 hours	2 hours	1 - 1.5 hours
Fluorine	Yes, fluorine C-6, PFOA free	Yes, fluorocarbon C-6 PFOA and PFOS free (below the declarable level)	Yes, below the declarable amount of fluorine

8681 Hybrid Nano Silica Fusion Technology (HNSFT)

With self-healing characteristics

PROPERTIES

The Fabric Industry has been searching for a coating which offers the same performance as C8 (PFOA) technology, yet without the obvious negative attributes.

It became apparent that a technology based on SiO^2 could prove to offer the solution, and this has indeed proven to be the case.

The new hybrid coating, which also utilises an environmentally optimised, slightly cationic, C6-carbonfluoropolymer, is PFOA-free, stunningly hydrophobic and oleophobic, Self Healing and most importantly Machine Washable.

Fluorine-free Option

Another variant of this technology based on this technology completely allows us to provide fluorine-free coatings for offering exceptional hydrophobicity.

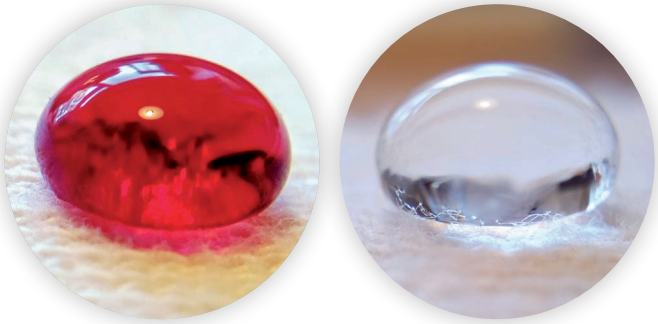
Note the significant drop in performance after washing. Due to the highly durable SiO^2 component the performance levels of HNSFT coated fabric remains high, even after repeated washes.

OUTSTANDING PERFORMANCE

CCM HNSFT technology provides an oleophobicity rating of up to 8 (ISO 14419)

The chart shows the performance of standard commercially applied fabric coatings. The maximum oleophobic rating after 10 washes is only 5.

Fabrics coated with HNSFT technology after 15 wash cycles



We offer a technology which surpasses the performance of C8

DWR Chemistry	Water-repellent PA after 10 Washes	Water-repellent PET after 10 Washes	Oil-repellent PA after 10 Washes	Oil-repellent PET after 10 Washes
Fluoro C8 (telomer) (FC)	5	5	3,5	3,5
Fluoro C6 (telomer) (FC)	4	4,5	4,5	2,5
Fluoro C4 (EFC) (FC)	5	4	0	0

Our experience of working with SiO^2 based coatings informed us that this technology offered us the best foundation from which to create a new coating. The main obstacle to overcome was "enhancing the bonding characteristics of the coating". This obstacle was overcome by creating a hybrid matrix, which, when heat cured would provide a coating which would not only match but supersede the performance characteristics of standard C8 fabric coating technology.

ATTRIBUTES

- PFOS and PFOA free
- F-C Modified silica: The fluorinated component is very strongly bonded to the SiO^2
- Bonded structure massively reduces degradation of the coating
- Outstanding oleophobicity/oil repellency (depending upon fabric type, e.g. 8 on PES), based on ISO 14419

TECHNICAL DATA

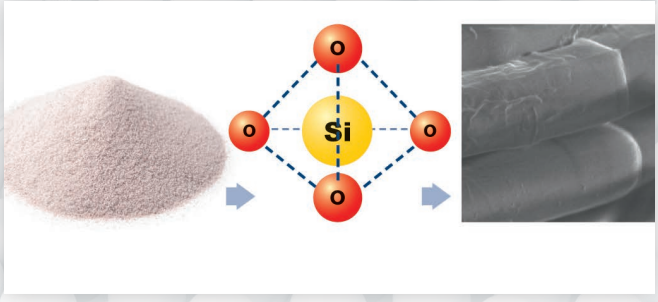
- Washing stability 25 - 100 washing cycles
- (AATCC) Test Method 135, ECE formulation washing powder, non-phosphate reference
- Oil repellency: ISO 14419 / 8-6 (depending on the substrate)
- Self-healing prompted by tumble drying
- Water repellency: AATCC 22 / 100, ISO 4920 / 5
- Temperature stability: 220°C
- Transparency: 100%
- Outstanding UV-stability > 3.500 hours

OIL REPELLENCY ON FABRICS (ISO 14419)

Type of Textile	Results
Polyamid ISO 105-F03	Oil 6 / 7 / (8 B)
Polyester ISO 105-F04	Oil 6 / 7
Wool ISO 105-F01	Oil 6 (-) / 5
Cotton ISO 105-F09	Oil 6 / 7
Multifibre ISO 105-F10	Oil 6 / 7 / 8

From quartz sand to a revolutionary Liquid Glass Technology Coating

The key component within our coating is nano scale silica.



8681 Hybrid Nano Silica Fusion Technology (HNSFT)

With self-healing characteristics

The constituents are supplied in four different concentrates.

For creating 1.000 litres the amounts are:

Component 1 - 10 litres
Component 2 - 30 litres
Component 3 - 10 litres
Component 4 - 8 litres

Simply mix the constituents into water to create the HNSFT coating. Pre-drying at 100°C is recommended as the fabric must be dry before “curing”.

Curing: Approximately 60 to 120 seconds at 150-175°C.

Curing times and heat settings can be adjusted to match fabric types and production methodology.

Foulard application is recommended.

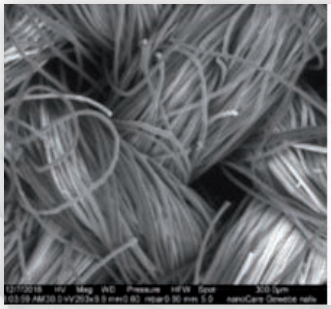
Stability of mixed coating: 2 days
Shelf life of the components: 1 year

INDUSTRIAL APPLICATION

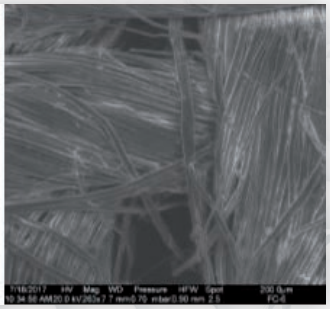
Target Groups for Textiles coated with Hybrid Nano Silica Fusion Technology (HNSFT) with self-healing characteristics:

- **Military**
- **Hospitals**
- **Working Safety**
- **Sports Wear**
- **Technical Textiles**
- **Adventure clothing**
- **Fashion clothing**
- **Upholstery**
- **Carpets**
- **Automotive**

Without



With



FOR COMMERCIAL & DIY APPLICATION

This variant is supplied as a simple to use concentrate. The coatings is applied to fabrics, finished garments, soft furnishings etc. by either spray, sponging or dipping.

In order to cure the coating the item should be heat cured via either a tumble dryer, or hair dryer for smaller items such as sneakers or hats.

PERFORMANCE CHARACTERISTICS

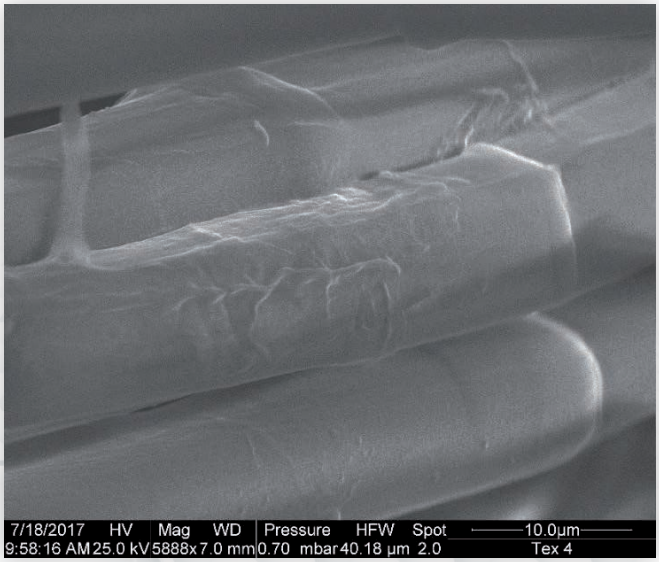
Coated fabrics offer excellent hydrophobicity and oleophobicity for up to 20 wash cycles. The durability of the coating depends on the structure of the fabric, e.g. Cotton-polyester fabrics offer more prolonged performance than pure cotton fabrics.

The HOT STUFF® range is based on a „common core technology“.

It is possible to adapt this technology to meet specific needs such as enhanced resistance to Dry Cleaning. Please contact us if you have a specific requirement for fabric coatings.

PACKAGING & SHIPPING

HS Code: 3824 9996, no DG



HS4863 HOTSTUFF - Sneaker Guard Pro

The ultimate sneaker protection

- Ultra strong stain protection
- Water and oil repellent
- Very durable – machine washable at 30°C (min. 10 times / eco wash)
- Self-healing, heat the shoe after washing in order to stimulate self healing action
- For all types of sneakers made from fabric and suede (not optimised for smooth leather shoes)
- Ultra strong stain protection, suitable for military use
- Easy-to-use
- No colour change
- Water-based
- Free from propellant gas and CFCs
- Biodegradable
- Not tested on animals

CONTENTS

- 2 x 5 ml concentrate (5 ml create 100 ml coating = for 1-2 pairs of shoes), 1 empty 100 ml spray bottle, 4 gloves

APPLICATION INSTRUCTIONS

Hot Stuff® is a high performance coating technology. In order to gain optimum performance the surface being coated should be completely clean, dry and free from other coatings.

1. Remove the empty bottle from the pack and unscrew spray-head.
2. Cut the corner of the sachet containing the Hot Stuff® concentrate and place the concentrate into the empty bottle.
3. Fill the spray bottle with water, screw on the spray head and shake well (for approx. 20 seconds).
4. Wear protective gloves.
5. Spray shoes thoroughly. The fabric should be fully moistened. Wipe the surface, with gloved hands, ensuring that the liquid is fully dispersed into the fabric. For optimum protection it is suggested that laces are removed prior spray coating. Spray the laces separately.
6. Allow the shoes to „air-dry“ (preferably overnight) This is the recommended process. Alternatively the shoes can be heat dried immediately after coating. The drying time when heat drying from wet varies greatly depending on size, fabric and drying method.
7. When the shoes are completely dry (after air drying) use a hair dryer to warm each shoe THOROUGHLY. As a guideline heat for at least 5 minutes per shoe. Alternatively, the shoes can also be heated in a tumble dryer. In most instances, a 20 minute cycle at full heat is sufficient.

IMPORTANT: The Hot Stuff® coating is activated by heat. Inadequate application of heat will result in poor performance. The activation of the coating starts at a minimum temperature of 50°C. The target temperature is in the 50 to 80°C range. Do not spray onto skin or eyes.

READY! Your shoes are now protected with a high performance, self-healing coating.

7601 Super Glass / 7608 (Conc.)

Glass and Ceramic Coatings, recommended for all kinds of glass

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
7601: -25 to +35°C (also in sunlight)	150 - 200 m^2	Outside under German weather conditions 7601: 3-5 years	2 years	-10 to +30°C	12 hours at 20°C (surface usable after one hour)

PROPERTIES

- Clear, colourless liquid, virtually undetectable, surfaces look and feel the same after application but they may look slightly brighter.
- Easy to apply and re apply
- Resistant against frost and extreme heat or UV exposure, to salt, hard water minerals, seawater, salty air, domestic acid and alkali solutions e.g. within the range pH 2-12
- Anti-soiling, water and dirt-repellent
- Helps to prevent water marks, dirt, algae and bird fouling from adhering to glass
- No scraping, scrubbing or harsh chemical cleaners needed as soiling agents do not bond to the coated surface
- Protects windows from irreparable corrosion, abrasion and "salt burn in"
- Easy to clean effect, treated surfaces remain clean for pro-longed periods, this reduces cleaning time and the costs for cleaning and care
- Drastically reduces cleaning frequencies, saving energy, time and cost
- Self-cleaning glass effect on vertical surfaces after heavy rain
- Reduces the growth of micro-organisms and bacteria
- Enhanced hygiene due to biostatic characteristics
- Will considerably reduce surface friction
- Long durability
- Contact angle approx. 104°C
- Heat resistance: 450°C short-term (seconds), 250°C long-term (hours)
- PH-value stable:1-12,5
- Layer thickness 60 - 150 nm
- Inorganic
- 7601 TÜV tested on windscreens

Purchased from local supplier:

- Ethanol (EtOH): 99% or higher 19.3 litres
- Hydrochloric acid 37% (HCl): CAS No.: 7647-01-0: 40 g

7608 CONCENTRATE

For 20 litres:

- Component A: 400 g
- Component B: 400 g

ALGT© glass & ceramic is ideal for use on glass and ceramic surfaces in environments such as

- Buildings e.g. glass facades/entrance doors
- Float glass
- Treatment of automotive glass (massively improves visibility in rainy conditions), durability: 6601: up to 6 months, 7601: up to 12 months.
- Treatment of solar/photo-voltaic plants (higher efficiency)
- Anti-soling coatings of ceramic and enamel conservatories
- Sanitary ware (shower screens, splash-backs, mirrors, basins, toilet)
- Glazed ceramic tiles
- Ceramic bathtubs, showers, sinks, swimming pools
- Windows, sliding doors, skylights, louvre windows balustrades kitchens

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
7601-1 / 7608-1	1 000 ml bottle
7601-200 / 7608-200	200 litre barrel
7601-1000 / 7608-1000	1 000 litre IBC

HS Code 7601: 3824 9992, DG

HS Code 7608: 3824 9992, no DG

QUALITY STANDARDS

Test	Description
ISO 11507	Artificial weathering with fluorescent UV lamps + water (method A)
DIN 55620-1+2	Determination the contact angle
DIN EN ISO 11998:2008	Determination of the wet-scrub resistance and cleanability of coatings
TÜV	Test on windscreens: 1) Perl effect from 40 km/h 2) Easy--to-apply 3) streak-free
DIN 1249 part 12, DIN 18516, part 4, DIN EN 12150	Test Flexural Strength on Safety Glass
CCM lab	Contact angle
TÜV	Pencil + scratch hardness, hydrophobic effect, contact angle

640 Permanent Protect / 7640 Profi Protect

High Performance Coating - Aerospace Grade

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
+5 to +35°C	Up to 150 m²	Up to 25 years	24 months when stored in original containers, 6-12 months after opening	+5 to +25°C	7 days at room temperature

This is a highly advanced SiO^2 coating which was created to address the needs of the marine, military and aerospace sectors. It is massively resistant to corrosion, abrasion and temperature. It can be applied to metal, plastic, powder coated and painted substrates. The coating can be heat cured, or cured at ambient temperature. ALGT© Permanent Protector reacts with the substrates surface and forms an abrasion resistant coating with very high bonding properties on metal. It generates thin, transparent coatings with high impact strength and is resistant to alkali, abrasion and corrosion.

PROPERTIES

- Organic polymeric compound
- Contains solvent (not water)
- Clear, colourless liquid based on silanes
- Ultra high performance, hardness of 7-9H
- High impact strength
- Ideally suited for the water/dirt-repellent coating of non-absorbent materials in outdoor and indoor areas
- Can be sprayed or wiped on to surfaces
- Generates a generally invisible surface. The coating does provide a glossy appearance
- Extremely resistant to corrosion, abrasion, acids and alkali eg within the range pH 2-12 in diluted form, sea water and salty air (extensive Salt spray testing has been conducted. In addition testing shows that this coating is also resistance to rocket fuel!)
- Highly resistant to a large number of organic solvents
- Treated surfaces remain clean for prolonged periods and are “easy to clean”
- Protected surfaces provide reduced costs for cleaning and care
- Food safe
- Heat resistant up to 700°C working temperature, 800°C peak
- Cold resistant up to -90°C
- Highly effective for up to 25 years
- Heat drying increases the hardness of the coating, which ranges from 7H (for room temperature curing) to 9H (for heat curing)
- Contact angle: 105°
- VOC content solvent: 59,9 %
- Layer thickness: 5-20 µm

More information

DIFFERENCE BETWEEN 7640 AND 640

The 7640 offers almost identical performance characteristics to the 640 coating but the solvent balance has been altered in order to allow for a longer working time. The coating can be applied in exactly the same way as the 640 coating but buffing (if required) can be conducted up to 20 minutes after application. This makes the application on to autos, aircraft and boats, significantly easier.

All of the other key points are the same as 640.

QUALITY STANDARDS

Test	Description
DIN 10531	Migration test (metals)
EN 1186-4 + 5	Overall migration test
EN 13130	Specific migration test
Martens, Vickers	Hardness Test on Mobile Phone Screens

640 / 7640 can be used on materials such as:

Ferrous metals, non-ferrous metals, galvanised metals, varnished surfaces, powder coated surfaces, plastic, e.g. window frames, anodized aluminium, painted surfaces and many more

640 / 7640 can be used in a vast variety of commercial applications:

- Military industry (battle ships, airplanes, tanks, weapons etc.)
- Steel industry (bridges, constructions, equipment, components, machines etc.)
- Oil industry (pipe lines, platforms, coupling units etc.)
- Merchant and Leisure marine. On a vast number of
- Surfaces above and below the waterline
- Car industry (engines, paint top coat etc.), protection for at least 5 years
- Rain industry (engines, train frames, paint top coat, against graffiti etc.)
- Aerospace (engines, paint top coat, leading edges etc.)

640 / 7640 is also our recommendation for use on stainless steel

For extreme abrasion resistance

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
640-50 / 7640-50	50 ml bottle
640-100 / 7640-100	100 ml bottle
640-1 / 7640-1	1 000 ml bottle
640-5 / 7640-5	5 000 ml bottle

640 / 7640 Application of the Ceramics Coating for Automotive Surfaces

The **640 / 7640** can be applied to almost any (car) paints. To attain optimum performance it is essential that the target surface is to perfectly clean; it must be completely free from waxes, silicone coatings etc., otherwise the coating will not be able to bond to the surface.

Before full application, please always carry out a test on an inconspicuous location (e.g. in the engine compartment or the car). Do not apply the coating to freshly painted surfaces as the paint must completely cured before application.

CLEANING AND SURFACE PREPARATION

This product is a product for professionals, therefore it is recommended to practice the application to "get a feel" for the application process. In addition the polishing process should be practiced so that the desired level of gloss finish is attained.

First, meticulously pre-clean the car paint; for this you may use common cleaner, or our pre-cleaner BIOSATIVA®. After completion of the general cleaning process, deep clean

he surface with alcohol (e.g. at least 70% isopropyl or ethanol alcohol, we supply these liquids if required) so that all contaminants are removed. The use of a clay bar cleaning process is also suitable. The simple message is that the coating should only be applied to surfaces which are free of contamination.

The better you perform the pre-cleaning, the better the adhesion and subsequent longevity of the coating.

APPLICATION PROCESS

Please ensure that the application is performed in a well ventilated and dust-free area. We recommend that you use a protective mask during application as the liquid has a strong odour. Wearing protective gloves is also recommended. Please read the MSDS information.

The surface to be coated should be not too hot; so do not coat the car paint if the car was located directly under the sun before, otherwise the liquid will "flash off" and initial curing will be too rapid, and the polishing will be considerably more difficult. Ideally the process should be conducted at an ambient temperature of 25°C. (+/-5°C)

Plan your work. Apply the coating in small sections e.g. one body panel at a time. We recommend that you work in a team, e.g. one person applies the finishing and the other person polishes it promptly.

STEP BY STEP INSTRUCTIONS

❶ Prepare the surface as already described.

❷ Use a thin and smooth microfibre cloth to apply the finish (a cloth of approximately 25 x 25 cm is recommended). Completely moisten the cloth with **640 / 7640.** Apply the finish swiftly and evenly by wiping (always in one direction).

❸ Next, (after 1-2 minutes for 640 and up to 20 minutes for 7640) polish the coated surface without excessive pressure, using a smooth cotton or microfibre cloth (ensure that a lint free fabric is used).

Do not wait longer than 2 minutes before this first buffing action. You must ensure not to aggressively remove too much of the finish. Ensure that all blemishes are removed. If for some reason you delayed the polishing process, and „high spots" occur, immediately apply another layer of the finish; this will soften the layer below and you may polish anew.

Finish the buffing with a fine soft peach skin texture microfibre.

❹ In warm conditions the coating becomes dust dry after 2 hours and touch dry after 5 hours. After this, the finishing will be dry enough that you may use the vehicle again but the coating is still far from being fully cured and so avoid brushing against the surface with bags or keys.

The coating will cure faster if the surface is hot and so it will be advantageous to place the car in direct sunlight after the first 2 hours of curing.

Within the following 10 days the vehicle should not be cleaned as complete curing takes at least 8 days (depends on the temperature and the humidity), otherwise the finish may be damaged, especially if a drive through car wash is used.

641 Hybrid Multi Protect

Suitable for almost every hard surface including boats, aviation & marine

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
+5 to +25°C	50 - 80 m²	Up to 10 years	24 months, 6 - 12 months after opening	+5 to +25°C	7 days at room temperature

641 Hybrid Multi Protect is a hybrid, two-component, transparent sealing coating. This coating provides a high gloss appearance which is weather resistance for many years. The coating offers a range of valuable attributes. It of course offers an easy-to-clean-effect which means that environmental soiling agents don't adhere to the coated surfaces. In addition, the sealed surfaces can be cleaned without special cleaning agents, simply clean with water and a sponge. Faded or "chalked" surfaces can be rejuvenated and will appear like new, as the former shine and colour returns after being coated with 641 Hybrid Multi Protect.

The density of the coating creates a high performance anti-corrosion layer on metals. This attribute (which occurs without heating) linked with the anti-graffiti characteristics of the technology makes this an ideal, easy to apply coating for a wide range of products including street furniture, signage, railways and marine applications.

PROPERTIES

- Excellent shine and durability
- Long-lasting "easy-to-clean" characteristics
- Old and faded colours are refreshed and regain an "as new" shine
- Anti-Graffiti characteristics
- Anti-Fingerprint on metallic surfaces
- Long-term corrosion protection
- UV-protection significantly reduces bleaching
- Extremely resistant to mechanical and environmental degradation
- Resistant against domestic grade acid and alkaline degradation, as well as organic solvents
- 2 component coating
- Easy-to-apply
- Anti-graffiti performance
- Food-safe
- Layer thickness: 10-25 microns

CERTIFICATION

- Certified according to AS/NZS4020 2005 (Australia) for use in contact with drinking water.
- Certified for use in contact with food (EU)

641 Hybrid Multi Protect is ideal for use in:

- Marine sector, can be used on aluminium (treated or untreated)
- Busses
- Trains
- Stainless steel
- Brass
- Copper
- Several kinds of plastics and GFK/GRP
- Food silos

Two component coating

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
641-50	50 g
641-100	100 g
641-1000	1 000 g
641-5000	5 000 g

HS Code: 3208 9091, DG

643 Metal Dura Easy On - Metal Coating

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
-5 to +40°C,	80 - 150 m^2 (one layer)	24 - 48 months	Up to 24 months	+5 to +35°C	24 hours for water resistance, 6-7 days for abrasion resistance

643 offers high water and dirt repellency linked with high durability against mechanical wear on synthetic or metallic surfaces. Inorganic groups give 643 Dura Easy On perfect adhesion to the substrate and a pencil hardness of 9H.

PROPERTIES

- Ceramic / hybrid based substances
- Based on Silicon, with Hydrogen and Nitrogen bonding
- Pencil hardness up to 9H (harder than car paint)
- Room temperature curing or heat curing possible
- Permanent easy-to-clean effect
- Outstanding UV/weather-, abrasion and chemical resistance
- Withstands strong acid and domestic grade alkalines
- Chemically inert
- Transparent, virtually invisible
- Colour deepening possible by application of several layers
- Food-safe
- Strong chemical bonding
- Free from Halogens
- High temperature-resistance up to 600°C
- Usable as an anti-graffiti coating
- Corrosion inhibiting characteristics
- Barrier properties
- Stain guard against acid (pH 2 to 12,5)
- Simple application (wipe or spray application, dipping is not recommended)
- Contact angle 105°
- Layer thickness: 1 µm

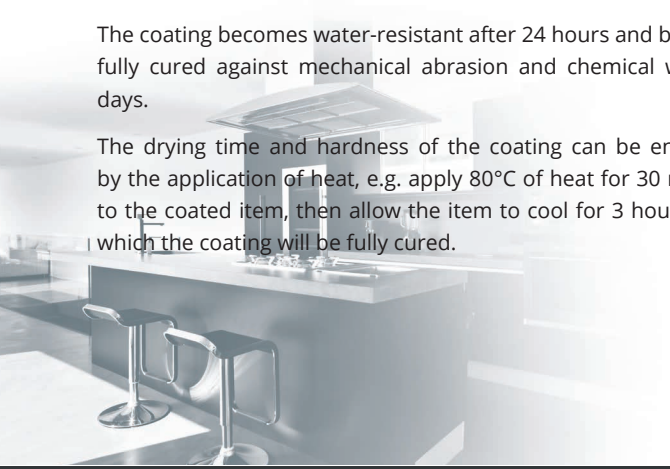
APPLICATION

Clean the surface thoroughly with a residue-free cleaner.

For car-paints, we recommend butyl acetate. When applying manually it is suggested that a gentle circling motion is utilized in order to ensure that no visible surplus is evident, (if required, this process be repeated up to 3 times, at intervals of 5-10 minutes in order to increase the layer thickness).

The coating becomes water-resistant after 24 hours and becomes fully cured against mechanical abrasion and chemical within 7 days.

The drying time and hardness of the coating can be enhanced by the application of heat, e.g. apply 80°C of heat for 30 minutes to the coated item, then allow the item to cool for 3 hours, after which the coating will be fully cured.



ALGT© Plastic and Metal is ideal for use on

CAR PAINT

- Strong dirt and water repellency
- Noticeable improvement of paint hardness
- Lifetime/longevity 3-4 years
- Protection against bird droppings
- Protection against micro-scratches caused by car washes
- Protection against small gravel impact
- Protection against colour loss of the car

METAL

- Graffiti protection
- Strong dirt and water repellency
- Corrosion inhibiting characteristics

PLASTIC

- Graffiti protection (e.g. road signs)
- Strong dirt repellency (e.g. truck tarpaulin)

MARBLE / NATURAL STONE

- Acid resistance
- Strong dirt repellency
- Stain guard
- Food-safe (kitchen worktops)

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
643-50	50 ml
643-100	100 ml
643-1	1 000 ml
643-5	5 000 ml

HS Code: 3824 9992, DG

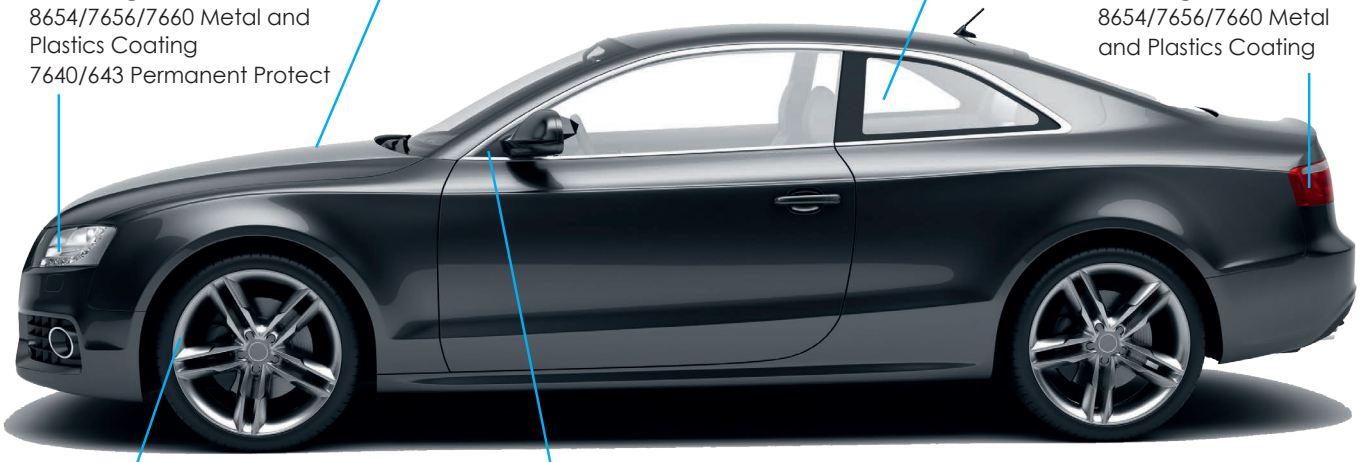
Q² Quantum Quartz Car Coatings

Bodywork:
8654/7656/7660 Metal and Plastics Coating
7640/643 Permanent Protect

Car glass:
7601 Glass and Ceramic Coating

Head lights:
8654/7656/7660 Metal and Plastics Coating
7640/643 Permanent Protect

Rear lights:
8654/7656/7660 Metal and Plastics Coating



Rims:
8654/7656/7660 Metal and Plastics Coating
7640/643 Permanent Protect

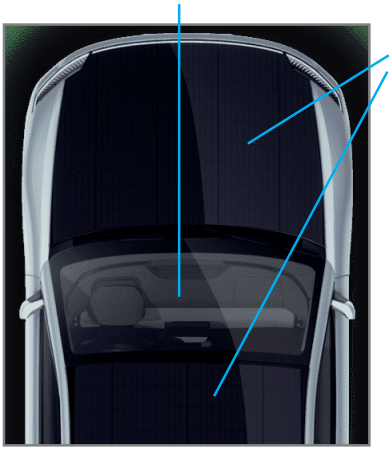
Trim (unpainted plastic):
8654/7656/7660 Metal and Plastics Coating
7640/643 Permanent Protect

Seats:
Fabrics: 7689/683
Leather (natural) non painted: 7625
Leather painted / coated: 7656

Dashboard:
Metal and Plastics:
7656/7660

Electric Cars

Car Glass:
Glass and Ceramic Coating 7601



Solar Panels:
Glass and Ceramic Coating 7601

If it is raining, a lot of energy will be used by the windscreen wiper motor. By using the 7601 coating you can significantly reduce the use of the windscreen wipers and therefore save energy and gain many miles of ADR „additional driving range“.

Q² Quantum Quartz Car Coatings

CCM offer a world class portfolio of coatings, for almost all surfaces known to man, including the wide range of surfaces found in the auto, marine, healthcare, industrial, sporting, agricultural, aviation, military and domestic environments. The coatings range from simple „wipe and go" type coatings, to ultra-durable, military grade coatings which are designed for professional application. The Q² Quantum Quartz is not simply a brand, it is an exact description of the make up of our technology. The coatings are predominantly based on SiO^2 (Quartz) and the bonding processes involved in establishing our coatings are measured at the Quantum level. The Q² Quantum Quartz range of protective coatings, ranging in thickness from approximately 500 times thinner than a human hair to the thickness of a human hair, are our premium quality coatings.

7660 "POLISH" 2 IN 1

This coating is loved by car detailers. It provides an amazingly "low friction" layer. It is very easy to apply, simply wipe on and buff (e.g. by using a polishing machine). It can be used for internal and external surfaces and it provides a super smooth, easy to clean, hydrophobic surface. It is not designed to be a highly durable coating but it will still last for several months on the exterior surface of a car.

8654 QUICK GLOSS (WATER-BASED)

This coating is an aviation grade "wipe on" coating. It is designed to provide a quick and easy hydrophobic coating. Simply spray the coating on to the target surface, usually external paintwork, plastic seating, (boats) stainless steel fittings etc.. After spraying on the water based liquid simply wipe the surface and lightly buff if required. It takes seconds to apply and will last up to 12 months.

7656 PLASTIC-METAL PREMIUM

This is a highly durable DIY liquid glass coating. It requires greater care when preparing for application. In order to gain maximum performance from this coating, it is important that all target surfaces must be perfectly clean and dry. The coating is applied in seconds. Simply wipe this liquid glass on to the surface and then buff some minutes later. It will withstand many tens of thousands of wiping actions. It is suitable for stainless steel, plastic and painted surfaces, e.g. headlights, body work, instrument panels, bridge windows, aircraft windows, motor cycle visors, cockpit areas, oven tops. It is heat resistant up to 250°C.

643 EASY ON

This coating is like a "supercharged 7656". It is applied in the same way, by wiping, but it is a significantly more durable coating as at 500 nano meters it is approximately 5 times thicker than 7656. It can be applied to metal, plastic, glass and painted surfaces. It provides a super durable, non-staining hydrophobic coating which will last for several years on the bodywork of a car, boat hull or aircraft. The coating, which provides a super glossy surface is also highly resistant to solvents, acids and alkalis. It is also massively heat tolerant. This coating can be used on almost all non-porous surfaces and it is fast and easy to apply.

7640 PREMIUM QUALITY

This coating is a military grade coating. It is massively durable, but with great durability comes great responsibility. This is a „professional" coating. It has enormous bonding energy and has to be applied correctly. This coating is supplied on a global basis to car detailers and is regularly applied to some of the world's most expensive cars. It can be applied by spraying or wiping depending on the need of the customer. When applied the coating provides an ultra-durable, glossy, stain resistant, graffiti resistant, heat tolerant, anti-corrosive, UV stable, hydrophobic coating. The coating will last for many years.

COMPARISON OF OUR PREMIUM COATINGS FOR CAR PAINTING AND RIMS FROM NANO TO MICRON SCALE

	7660	8654	7656	643	7640
	Very easy, simply wipe on and buff off	Very easy, simply wipe on and buff lightly	DIY - clean, apply with with care and buff after curing	For skilled application	For professional application
Application Temperature	-25 to +80°C, suitable for application in direct sunlight	0 to +45°C	+5 to +30°C	-5 to +40°C	+5 to +35°C
Durability	Approx. 1 year	Up to 12 months	Approx. 1 year	Up to 36 months	Up to 72 months
Curing Time	12 hours at 20°C (car usable after one hour)	5 minutes (car immediately usable)	12 hours at 20°C (car usable after one hour)	24 hours for water resistance, 6-7 days for abrasion resistance (car usable after 5 h)	7 days at room temperature (car usable after 5 h)
Perl Effect	Medium	High	High	High	High
Gloss Effect	High	High	High	High	High
Scratch Resistance	✔	✔	✔	✔ ✔ ✔	✔ ✔ ✔ ✔
Per Mid-range Car	Approx. 100 ml	Approx. 100 ml	Approx. 50 ml	Approx. 50 ml	Approx. 50 ml
Consistence	Emulsion, solvent free (no waxes or solvent silicones)	Liquid, water-based	Liquid, alcohol-based	Liquid, multi solvent-based	Liquid, multi solvent-based
Resistant to Frost	Yes	Yes	Yes	Yes	Yes
UV resistant	Yes	Yes	Yes	Yes	Yes

620 Stone / Mineral / Concrete Coating, penetrative
7620 Penetrating Stain Protector

KEY FEATURES

Art. No.	Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
620	+5 to +30°C	8 - 50 m², depending on the absorbency of the stone	10 - 20 years or decades, depending on the nature of the stone	Plastic bottles: 5 - 10 years Alloy bottle: Unlimited	-10 to +40°C	3 - 6 hours at 20°C (surface usable after 1 - 2 hours)
7620					+5 to +30°C	48 hours

Unlike our standard coating for stone 695 (which is a water based topographical coating) this coating is designed to penetrate deep into the structure of the stone. After it has become established in the stone it provides massive protection against abrasion, and water ingress. Specifically developed for mineral based surfaces such as sandstone, limestone, travertine, concrete, pavers and brickwork.

The coating will remain highly effective for at least 10-20 years. This coating can be used on floors and on work surfaces include hybrid stone.

It is primarily designed as an anti-weathering coating for stone which significantly impedes and water ingress. On some stone (normally dense stone such as marble and granite) the coating offers additional stain resistant characteristics. Testing is always recommended before large scale application. It should not be applied to wet or moist stone. Optimum performance is established after drying for 24 hours at approximately 20°C.

PROPERTIES

The 7620 offers the same application characteristics as the 620 coating but with added benefits of strong oleophobicity and associated stain resistance.

- Contains solvent (not water), no formation of sticky
- Silicon films
- Suitable for internal and external usage, it performs exceptionally well on smooth or rough materials.
- Can be applied to large areas by spraying
- Time saving one step application - no residue after application
- Permeates up to 25 mm deep (depending on the stone structure)
- Highly durable, offering protection for 10-20 years or decades, depending on the nature of the stone and the application process utilised
- The coverage rate varies depending on the absorbency of the stone, approx. 8-14 m² per l for highly absorbent stone to approx. 20-50 m² for less absorbent stone, such as granite
- No negative impact on the consistency of the stone
- Enriches stone colours
- Coated surfaces remain breathable
- Resistant against frost, UV light (California Test - 24,000 hours or 5 years of sunshine), salt attack (e.g. chlorides), staining, higher pH levels found in new masonry and pointing, water ingress, soiling, pollution, vegetation and extremely resistant to abrasion
- Water/dirt-repellent, the coating reduces the amount of moisture on the surface & therefore minimises the growth of mould, moss & algae as well as discoloration due to air pollution
- Reduces significantly the uptake of water and soluble salts (e.g. chlorides)
- Helps avoid unsightly dark water streaks
- Easy to clean effect, treated surfaces remain cleaner for longer
- Considerably reduces the amount of maintenance work required on stone buildings and it provides a cosmetically stable appearance and mechanically stable structure for many years
- Soiling is easily removed with water and other agents such as BIOSATIVA®, our award winning Bio Cleaner
- Not affected by chlorine or salt water, making it ideal for pool areas while ensuring that after coating, the surface remains unchanged
- Not affected by steam diffusion through the treated materials and has the top rating in Europe for active gas permeability e.g., being able to “breathe” so there is no build-up of subsurface moisture (EN ISO 7783-2, Classification I, Sp<0.14m)
- Thermal efficiency of walls is improved as stone sealer prevents water ingress
- Can be used as part of a flood protection system for a building
- Highly effective as a waterproofing membrane
- Contains aroma free Naphtha, therefore oily liquids have to be removed from the surfaces within minutes after soiling. The coating is not permanently resistant against staining from liquids such as lemon juice, red wine, olive oil etc. We recommend our “Permanent Protector” or Anti graffiti coatings for protection against such staining.
- Anorganic silan-siloxan mixture
- Mostly inorganic

620 Stone / Mineral / Concrete Coating, penetrative
7620 Penetrating Stain Protector

APPROXIMATE COVERAGE RATES PER M²

- Concrete (excluding hybrid concretes with significant levels (more than 1%) of added acrylic compounds or other similar plasticising agents), approx. 10 - 30 m² / litre, depending on the density of the concrete).
  Testing above these ratios is advised.
- Tiles, unglazed/porous (approx. 20 - 40 m² / litre)
- Roofing tiles (approx. 15 - 25 m² / litre)
- Brick/masonry (approx. 20 - 30 m² / litre)
- Limestone (approx. 15 - 25 m² / litre)
- Sandstone (approx. 8 - 15 m² / litre)
- Mineral plaster (approx. 15 - 30 m² / litre)
- Marble & polished marble (approx. 30 - 50 m² / litre)
- Granite – polished granite (approx. 40 - 70 m² / litre)
- Natural stone (approx. 10 - 30 m² / litre)
- Slate (approx. 15 - 30 m² / litre), slate becomes slightly darker
- After application as oxidation and abrasion is reduced. Coated slate retains an “as good as new appearance” for a prolonged period)

No concentrates available

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
620-1 / 7620-1	1 000 ml bottle
620-200 / 7620-200	200 litre barrel
620-1000 / 7620-1000	1 000 litre IBC

HS Code: 3209 9000, no DG

8628 HydroCrete Concrete Additive SiO²

PROPERTIES

- Extremely strong mass-hydrophobic agent for wet-concrete
- Capillary regulating characteristic
- Protection against lime efflorescence
- High active ingredient
- Vapour diffusive
- High resistance to alkalies
- Plasticising properties (reduces brittleness, less cracking)
- Highly stressable stabilization
- Extremely weather-resistant
- Frost resistant and also resistant to de-icer
- Low dosage level

FUNCTIONALITY

8628 HydroCrete is extremely well suited as hydrophobic concrete-additive for the manufacturing of paving stones, concrete slabs and prefabricated concrete elements.

8628 HydroCrete improves concretes compaction, regulates the capillary properties of the concrete and reaches a durable and long lasting structure which is effective in reducing water absorption; this is especially evident where the fully cured concrete is used to stop rinsing moisture.

8628 HydroCrete protects the concrete against lime-efflorescences and against the growth of micro-organisms (moss, algae, fungus) on and in the structure. The final concrete-product remains vapour-diffusive.

APPLICATION

Stir the 8628 HydroCrete concrete additive thoroughly before use. Add the additive to the mixing water. The mixing time of the liquid should at least be 1 minute. Do not add 8628 HydroCrete to the dry concrete-mix.

The recommended dosage of 8628 HydroCrete is between 1% - 1.5% of the binder content (cement). Example: To create a concrete or cement mix. Take 1 kg of cement powder. Mix this with 2 kg of sand and 2 kg of aggregate. Mix thoroughly. Add 10-15 ml of the 8628 to 1 litre of water (the amount of water will alter depending on the nature of the concrete required as will the sand/cement/aggregate ratio). Stir this liquid for a minimum of one minute to ensure full dispersion. Add this newly created water + additive to the concrete mix as normal.

Please note that in this example, the 1 kg of cement powder plus 10 - 15 ml of the additive (1-1.5% of 7628 HydroCrete) is the critical ratio. If the mixture was based on 50 kg of cement powder you would add between 500 ml to 750 ml of 8628 HydroCrete, dependent of the performance level required.

Please use different doses for two-layer concrete (core-layer and face-layer). Example: Core-concrete: Appl. 1% facing layer: 1.5%

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
8628-1	1 000 ml bottle
8628-200	200 litre barrel
8628-1000	1 000 litre IBC container

HS Code: 3824 4000, DG

7622 Eco-StoneTopographical Hydrophobic Protection
7637 High performance protection for Monuments

Water based protection for stone and concrete

KEY FEATURES

Art. No.	Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
7622	+5 to +30°C	10 - 20 m², depending on the absorbency of the stone	1 - 2 years	1 year	Max. 20°C	48 hours (fully cured)
7637	+5 to +30°C	10 - 20 m², depending on the absorbency of the stone	Up to 10 years	1 year	Max. 20°C	48 hours (fully cured)

High-performance topographical coatings for stone and high-quality concrete products, such as wet room walls, monuments, concrete seating in public areas, stone foyer areas etc.. Reduces the effects of general surface contamination from water, food stuffs and oils.

PROPERTIES

Both coatings are created from the same core technology. the 7637 provides enhanced oleophobicity, stain protection and durability. The 7622 coating is recommended for areas which are not subjected to heavy contamination from oil, food product residues or graffiti.

- Water based high-performance agent
- Long term protection due to chemical surface bonding
- Anti-adhesion properties
- Highly oil-, water- and dirt-repellent
- Alkali-resistant up to approximately pH value 10-11*
- Reduces lime efflorescence
- Protection against re-soiling, algae and moss
- Allows vapour diffusion
- Fast curing resulting in a tack-free surface
- Highly UV-resistant
- Slightly acidic adjusted (pH-value approx. 4, the max. acidic pH-value for contact substances is about *3-4)
- Applicable by brush, foam roller, micro-fibre cloth or spray application
- Spraying with the CCM Low Energy Spray System or an airless spray (at< 4 bar) is possible
- Density: Approx. 1,0 g/cm³
- Odour: Low odour
- pH-value: approx. 5
- Ready to use liquid which creates an undetectable layer (The coating is normally undetectable but on certain stones e.g. black slate “colour enrichment” can occur. Colour enrichment is often a desirable outcome but not all end users seek colour enrichment. The 7637 variant provides greater colour enrichment.)

* Please note that the max. pH-values of contact substances may vary depending to the stability, cleanliness and the inherent pH values of the substrate.

CHARACTERISTICS

Besides these product features both coatings differentiate as follow:

Quality	7622	7637
Easier Removal of Graffiti	✔	✔ ✔ ✔
High Density Protective Layer	✔	✔ ✔ ✔
Durability of the Coating	1 - 2 years	Up to 10 years
Coating Walls of Buildings + Statues	✔	✔ ✔ ✔

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
7622-1 / 7637-1	1 000 ml bottle
7622-200 / 7637-200	200 litre barrel
7622-1000 / 7637-1000	1 000 litre IBC container

HS Code: 3910 0000, no DG

No concentrates available

704 Multi Stone - Stone / Concrete / Mineral Surfaces Coating

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature
+5 to +40°C	20 - 100 m²	5 years +	12 months	+5 to +25°C

704 Multi Stone is a SiO^2 based micron scale coating which offers massive durability linked with strong graffiti and stain resistance. It can be applied to all stone surfaces either in full strength or in diluted format, in 1, 2 or 3 coats by roller, brush or spray, depending on the level of protection required. To create a matt finish, wipe the surface with a microfibre or dry brush after application. 704 Multi Stone protects the substrate completely against moisture ingress.

PROPERTIES

- Topographical coating
- Super durable
- Solvent based
- Easy-to-clean effect
- industrial coating against Lemon Juice, Red Wine and Hot Engine Oil
- 100% solid clear coat foumulation
- Highly resistant to staining from oil, wine, lemon juice
- Micron scale coating
- Can be supplied as a coloured variant (every colour) from MOQ 1 000 litres
- Ready-to-use liquid, no concentrate available
- Can be layered
- The penetration of water, soot, coffee, cola, ketchup, red wine etc. is reduced
- The penetration of grill fat, fuel and waste oil and dry soil into The surface and can be very easily removed
- The curing process is at room temperature and it leads to a dust dry surface just in some few minutes
- Not soluble in water
- Can be applied by spray, brush, roller and dip or flow (not a „wipe on buff off"-coating)
- Resistant to heat and is non-flammable when cured. On stone is still active after 1000°C.
- Pre-warming the surface prior to coating enhances bonding
- Curing time: Dust dry after a few minutes and stackable, fully bonded after 24 hours
- Withstands 1 million wiping actions with a micro-fibre tissue
- Non-diluted coating offers maximum performance
- On some highly absorbent surfaces and on wood flooring (diluted layer may be applied followed promptly by a non-diluted layer. Apply the second layer within minutes of the initial layer, 2 parts 704 and 1 part thinner)
- Layer thickness: Approx. 100 µm
- Inorganic
- Dilutable with a) Ethanol, b) 1-Methoxy-2-Propanol

USE ON

- Natural stones with rough/absorbent surfaces (granite, slate, basalt, sandstone, limestone)
- Concrete (e.g. walls and facades)
- Roof tiles (unglazed)
- Flag stones
- Clinker
- Plaster
- Hop fittings (not suitable for polished surfaces, lightly abrade such surfaces prior to coating)
- Suitable for DIY application, no special equipment required

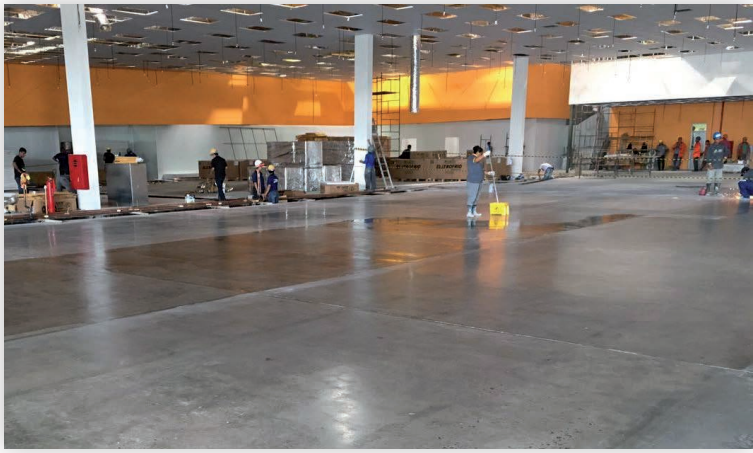
STONES / CONCRETE

- Bonds exceptional well on rough stones and concrete (needs a relatively rough surface to bond to. Not suitable for polished surfaces)
- Slightly breathable. Great performance against oil, water and domestic cleaning agents. Protects against red wine and lemon juice on marble when coated with a full layer. If a diluted layer is applied a slight blemish can occur from red wine after some hours
- Polished marble: It will adhere but if scratched hard it can be scratched off; however if the surfaces is abraded with a 60-80 Grit abrasive before hand excellent bonding will be achieved.
- Provides a glossy appearance, but wiping with a microfibre just after application creates a matt appearance.
- Excellent resistance staining on all surfaces. Anti-graffiti.

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
704-1	1 000 ml
704-5	5 000 ml
704-200	200 litre barrel
704-1000	1 000 litre IBC

HS Code 3208 9019, DG



706 Q² Marble PRO Marble Protection System

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing time
+15 to +25°C	50 - 80 m²	Up to 10 years	24 months, 6-12 months after opening	+5 to +25°C	7 days at room temperature

706 Q² Marble PRO is ideal for use on any marble surface. The coated surface becomes glossy and very easy to clean. Coated marble with 706 Q² Marble PRO will resist staining from wine and lemon juice for over 12 hours.

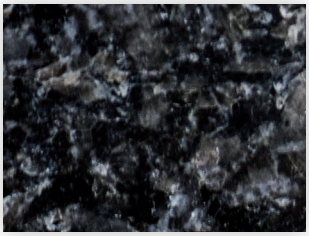
PROPERTIES

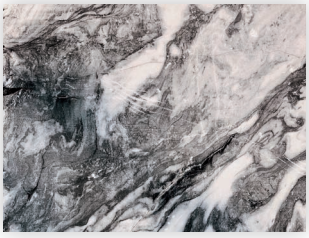
- Excellent shine and durability
- Long-lasting “easy-to-clean” characteristics
- Enriches the colours of the target marble/ stone surface
- Anti-stain characteristics
- Suitable for interior and exterior application
- Good UV stability and protection.
- Extremely resistant to mechanical and environmental degradation.
- Resistant against domestic grade acid and alkaline degradation, as well as organic solvents.
- Heat tolerant, ambient temperature 350°C, point temperature 220°C
- Layer thickness: Approx. 20-25 microns
- Two component coating

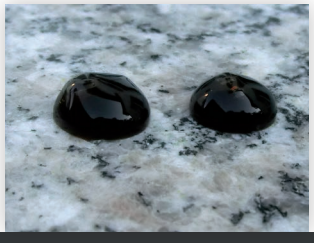
PACKAGING & SHIPPING

Art. No.	Bottle / Canister
706-50	50 g
706-100	100 g
706-1000	1 000 g
706-5000	5 000 g

HS Code: 3208 9091, DG








APPLICATION

CONDITIONS

- Working temperature (surrounding and surface) must be above 5°C
- Best results are obtained in a range between 15°C and 25°C
- No application in direct sunlight
- The surface must be clean, dry, grease-free and free from silicones, wax- or polish residues
- In most instances application will be conducted after the abrasion of the target surface. Ensure that all dust particles have been removed from the surface and local areas prior to spray application.

COMPATIBILITY

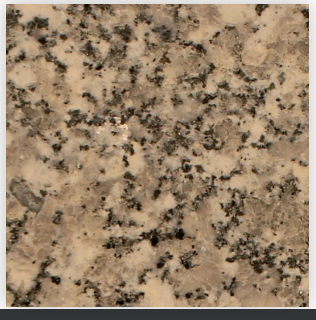
- Corroded areas e.g. tap bases or metal lighting or inlays within the marble, must be thoroughly cleaned and all corrosion removed before coating.

REPARATION

- Use undiluted
- Follow the mixing ratio instruction very precisely
- Add the hardener to the base liquid, shake or stir the solution and wait approximately 10 minutes
- Before working. Allow any “stirring bubbles” to dissipate before application
- Close the container of the hardener immediately. The hardener is very sensitive to humidity
- Maximum pot life after initial mixing is 4 hours.

APPLICATION

- Use the CCM Low Pressure Spray System for spray application. Spray application provides the highest quality finish.
- Roller application is possible but not recommended for surfaces which have to attain the high-quality appearance of kitchen and bathroom surfaces.
- If rollers are used it is recommended that a high-quality small pore roller for gloss paint and varnishes is used. Ovoid over application as this may create “roller- lines”. The target layer should be 25 microns.
- It is important to note that there is a degree of self-levelling after application.

7656 Plastic-Metal Premium / 7658 (Conc.) Coating for Plastics, Metal, Painted Surfaces, Stainless Steel & Metal

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
-25 to +50°C, also in sunlight	150 - 200 m^2	Outside: 1-3 years, under German weather conditions, inside: 5-10 years	2 years	-10 to +40°C	12 hours at 20°C (surface usable after one hour)

PROPERTIES

- Clear, colourless liquid, virtually undetectable, surfaces look and feel the same after application but they may look slightly brighter
- Invisible to the human eye (coating thickness: 100-150 nm)
- Easy to apply and re apply („do-it-yourself")
- Strong hydrophobicity and oleophobicity
- Strong non-stick properties
- Permanent, the permanent chemical bond with the substrate enables excellent abrasion resistance
- Resistant to almost all standard household and industrial cleaners (with the exception of concentrated lye)
- Breathable
- Resistant against temperature (frost and extreme heat or UV exposure), to salt, hard water minerals, seawater, salty air and alkali
- The UV-stability enable functionality for a number of years, approximately the lifetime of the coated surface (not damaged by sunlight)
- Anti-soiling, water and dirt-repellent
- Helps to prevent water marks, dirt, algae and bird fouling from adhering to plastics
- No scraping, scrubbing or harsh chemical cleaners needed as soiling agents do not bond to the coated surface
- Easy to clean effect, treated surfaces remain clean for prolonged periods, this reduces cleaning time and the costs for cleaning and care
- Drastically reduces cleaning frequencies, saving energy, time and cost
- No need to be re-applied after cleaning the surface.
- Reduces the growth of micro-organisms and bacteria
- Enhanced hygiene due to biostatic characteristics
- Food-safe (inert)
- Will considerably reduce surface friction
- Exceptionally long durability (up 3-10 years in most conditions)
- Exceptionally long shelf life (over 5 years)
- Layer thickness: 60 - 150 nm

7656 Plastic-Metal Premium is ideal in environments such as

- Plastic surfaces in sanitary areas (e.g. plexi®-glass shower cabinet)
- Automotive paint (protection for up to 2 years)
- Painted aluminium rims
- Stainless steel surfaces

Purchased from local supplier:

- Ethanol (EtOH): 99% or higher 19.3 litres
- Hydrochloric acid 37% (HCl): CAS No.: 7647-01-0: 40 g

7658 CONCENTRATE

For 20 litres:

- Component A: 400 g
- Component B: 400 g

QUALITY STANDARDS

Test	Details
ISO 11507	Artificial weathering with fluorescent UV lamps + water (method A)
DIN 55620-1+2	Determination the contact angle
DIN EN ISO 11998:2008	Determination of the wet-scrub resistance and cleanability of coatings
BS-EN 1186:2002	Migration Test on coated plastic surface
CCM lab	Contact angle

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
7656-1 / 7658-1	1 000 ml bottle
7656-200 / 7658-200	200 litre barrel
7656-1000 / 7658-1000	1 000 litre IBC

HS Code 7656: 3824 9992, DG

HS Code 7658: 3824 9992, no DG

7654 WB Rapid On & 8654 Quick Gloss / Metal and Plastic Coating & 6601 Easy Care Glass & Paintings Coating

KEY FEATURES

Art. No.	Application Temperature	Coverage Rate per Litre	Durability of the Coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
7654	0 to +45°C	100 m²	+/-6 months	1 year, diluted with medical grade De Ionised water: 2 years.	+10 to +30°C (protect from sunshine)	5 minutes, immediately usable
8654	0 to +45°C	100 m²	12 months	1 year, diluted with medical grade De Ionised water: 2 years.	+10 to +30°C (protect from sunshine)	5 minutes, immediately usable
6601	+5 to +25°C	150 m² - 200 m²	12 - 36 months	2 years	-10 to +30°C	12 hours at +20°C (surface usable after one hour)

PROPERTIES 7654 & 8654

- Water-based
- Solvent-free
- No odour
- Excellent water-repellency
- High-gloss effect
- Silky smooth surface haptic
- Resistant to nearly all acids, solvents and domestic grade alkaline cleaners
- Easy-to-clean effect (e.g. from impurities produced by insects, bird droppings, exhaust pollutants, and other aggressive stains)
- Very easy to apply
- Much more stable than waxes or silicon-oil-based products
- UV-resistant
- Non-toxic
- Non-flammable
- Readily biodegradable (according to OECD criteria)
- High abrasion resistance against wind-borne particles
- Significant overall reduction of re-soiling
- Temperature resistant from -40 - +200°C
- pH resistant from 1-10
- Not cytotoxic due to ISO 10993-5 + 12
- Inhibit bacteria growth
- Density about 1,00 g/cm³
- Layer thickness: Approx. 100-140 nm
- VOC free

IDEAL FOR USE ON

7654	8654 /6601
Household e.g. for shower screens, window and door frames etc.	Cars (as stand-alone coating or as "finish" on top of our 640 coating, one litre covers 8-10 cars)
Stainless steel surfaces	boats
Varnished and metallic surfaces	Paint Softening Test
Glass	Glass
Synthetic materials	Visors (ski goggles and motor cycle helmets, especially where there is concern about the use of solvent based coatings)
Rubber	
Chrome	

PROPERTIES 6601

- Alcohol-based
- Clear, colourless liquid, virtually undetectable, surfaces look and feel the same after application but they may look slightly brighter.
- Easy to apply and re apply
- Resistant against frost and extreme heat or UV exposure, to salt, hard water minerals, seawater, salty air, domestic acid and alkali solutions e.g. within the range pH 2-12
- Anti-soiling, water and dirt-repellent
- Helps to prevent water marks, dirt, algae and bird fouling from adhering to glass
- No scraping, scrubbing or harsh chemical cleaners needed as soiling agents do not bond to the coated surface
- Protects windows from irreparable corrosion, abrasion and "salt burn in"
- Easy to clean effect, treated surfaces remain clean for prolonged periods, this reduces cleaning time and the costs for cleaning and care
- Drastically reduces cleaning frequencies, saving energy, time and cost
- Self-cleaning glass effect on vertical surfaces after heavy rain
- Reduces the growth of micro-organisms and bacteria
- Enhanced hygiene due to biostatic characteristics
- Will considerably reduce surface friction
- Long durability
- Contact angle Approx. 104°
- Heat resistance: 450°C short-term (seconds), 250°C long-term (hours)
- pH-value stable:1-12,5
- Layer thickness 60 - 150 nm
- Inorganic

PACKAGING & SHIPPING

Art. No.	**Bottle / Canister**
7654-1 / 8654-1 / 6601-1	1 000 ml bottle
7654-200 / 8654-200 / 6601-200	200 litre barrel
7654-1000 / 8654-1000 / 6601-1000	1 000 litre IBC

HS Code 7654 & 8654: 3402 9090, no DG
HS Code 6601: 3824 9992, DG

CONCENTRATE OF 7654

7659-1	Coating:	3% = for 33,33 litres or 5% = for 25 litres
	Maintenance:	1.5% = 66,66 litres
8654 & 6601	No concentrate available	

7660 „Polish“ for Plastics and Metal 2 in 1

KEY FEATURES

Application Temperature	Coverage Rate per Litre	Durability of the coating	Shelf Life of the Liquid	Storage Temperature	Curing Time
-25 to +80°C, suitable for application in direct sunlight	25 - 100 m^2	+/- 1 year	Plastic bottles: 2 years	-10 to +30°C	12 hours at 20°C (surface usable after one hour)

Unlike our standard coating this SiO^2 based polish is an emulsion. The coating is very easy to apply and it withstands high levels of soiling and abrasion. Simply wipe on and buff off. This polish contains particles that are much smaller than a regular polish, thus enabling it penetrate deeper into the structure of the surface.

PROPERTIES

- Ideally suited as a water-/dirt-repellent surface modifier for non-absorbent substrates in outdoor and indoor areas
- Polishes and protects in one easy single application
- Generates an invisible (transparent) surface modification
- Surface will maintain the original appearance
- Will not remove top layer of paint
- Contains aromatics-free solvent, waxes and silicones (no SiO^2)
- Non-stick, glossy finish
- Resistant to frost, friction, UV (to prevent fading), alkali, sea water, salty air, bird fouling and heavy staining
- Water and dirt repellent (hydrophobic)
- Prevents tar, sap and insect residues from sticking to the surface
- Reduces the growth of micro-organisms and bacteria by creating a biostatic surface
- Considerably reduces drag and so offers greater efficiency for vehicles and boats
- Self-cleaning effect on vertical surfaces with heavy rain
- Coated surfaces can be cleaned with water or our award winning Bio Cleaner BIOSATIVA®
- The amount to be applied (10-40 ml/m^2) varies depending on the topography of the surface to be coated and application cloth used; a large thick micro fibre will absorb more liquid than a small smooth micro fibre. Match the application cloth to the surface which is being coated. Use a deeper pile cloth for rougher surfaces
- For up to 2 years on internal surfaces not subjected to abrasion
- Treated surfaces remain clean for prolonged periods and are “easy to clean”
- Protected surfaces reduce the costs of cleaning and care
- VOC content: 16 %
- Layer thickness approx. 30 µm

Highly suited to a wide range of uses within the “facilities” sector, for highly polished and easy to clean surfaces, e.g.:

- Lifts (easy removal of fingerprints)
- Foyer areas (high gloss levels, easy clean surfaces)
- Window frames (polymers, aluminium)

Ideal for an up to six months protection on:

- Automotive lacquer (very easy to apply and re apply)
- Alloy wheels
- Motorbikes
- Boats / jet skis / surfboards / kayaks
- Caravans / camper vans
- Buses
- Rains
- Trailer
- Painted metal, metal chrome, polished or stainless steel, GPR
- Smooth plastic surfaces

PACKAGING & SHIPPING

Art. No.	Bottle / Canister
7660-1	1 000 ml bottle
7660-200	200 litre barrel
7660-1000	1 000 litres IBC

HS Code: 3405 3000, no DG

Liquid Glass Home and Garden Coatings

Solar Panels:
Glass and Ceramics Coating 7601/ 7608

Bath Ceramics:
Glass and Ceramics Coating 7601/ 7608 + 6601 + 7675/7678

Mattress:
- 695/697
- 689
- 7689/7685

Aluminium:
Universal Coating
7675/7678

Plastics:
Plastic Coating
7656/7658

Windows:
Glass and Ceramics Coating 7601/7608, 6601 + 7675/7678

Wall:
Stone Coating 7620

Fabrics:
695/697 + 689 + 7689/7685

Concrete/Stone:
- 695/697 (topografical coating)
- 7620 (penetrative coating)
- 704 (very strong hydrophobicity)

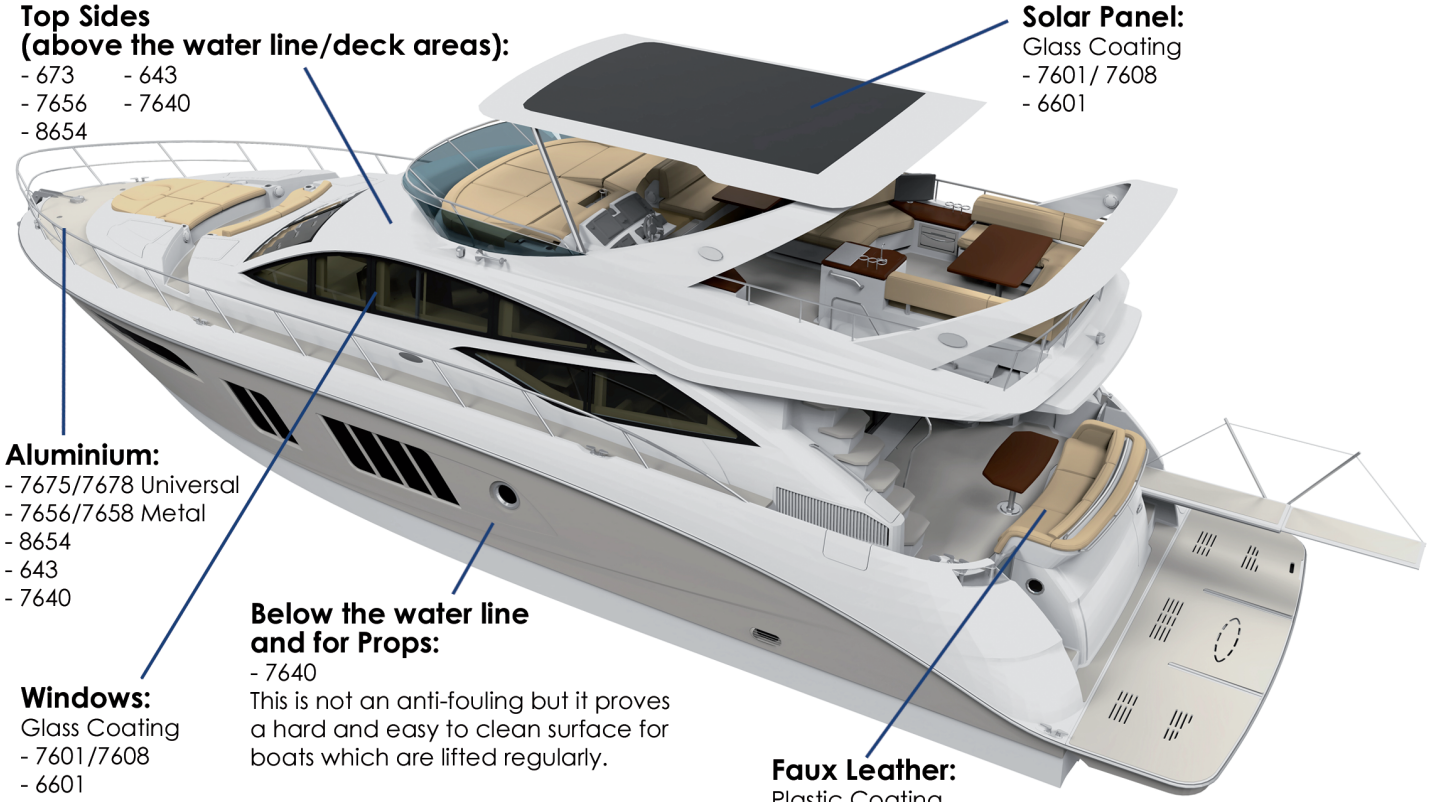
Textile:
- 695/697
- 689
- 7689/7685

Wood:
- 695/697 (topografical coating)
- 7620 (penetrative coating)
- 704 (very strong hydrophobicity)

Liquid Glass Coatings for Power Boats & Sailing Yachts

Top Sides (above the water line/deck areas):
- 673
- 643
- 7656
- 7640
- 8654

Solar Panel:
Glass Coating
- 7601/ 7608
- 6601



Aluminium:
- 7675/7678 Universal
- 7656/7658 Metal
- 8654
- 643
- 7640

Below the water line and for Props:
- 7640

This is not an anti-fouling but it proves a hard and easy to clean surface for boats which are lifted regularly.

Windows:
Glass Coating
- 7601/7608
- 6601

Faux Leather:
Plastic Coating
- 673
- 7656/7658
- 683/688

Stainless Steel:
- 673
- 7675
- 643
- 7640
- 8654

Wood:
- 7620: For teak decks & natural teak
- 673: For lacquered wood

Textile:
- 695/697
- 689/685
- 7689/7685

Screen:
Multimedia Coating 901

Biosativa, Multi award winning Bio Cleaner:
For cleaning the top sides, and bilge areas. Also for stain removal on all fabrics. No negative impact on marine life.

Blu 1000:
Biodegradable cleaner for heavily contaminated Stainless Steel and plastic surfaces. Rejuvenates heavily tarnished stainless steel. Non-abrasive.

GREEN APPLE AWARD WINNER

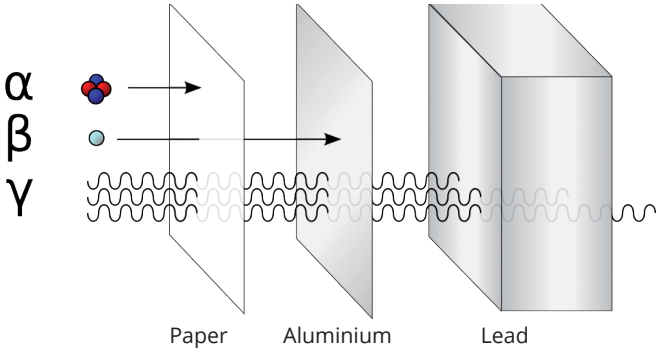
643 and 7640:
These are professional coatings and offer prolonged durability.

7654:
This is a Boeing certified "spray and wipe" hydrophobic coating for all non-absorbent surfaces. Medium durability approximately 3 months depending on abrasion. Quick, easy and very effective.

901 Mobile Phone Coating

PROPERTIES

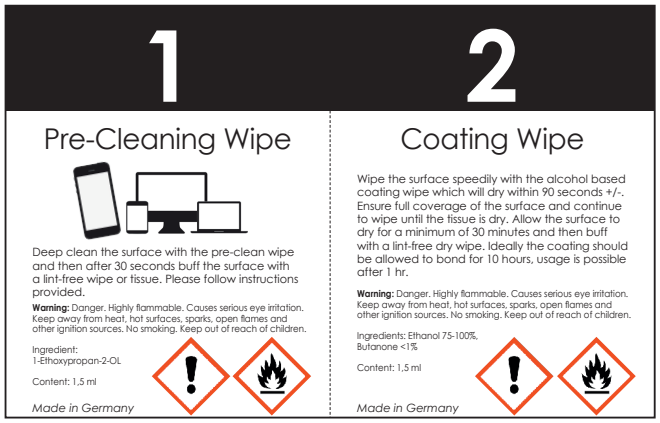
- Splash resistant
- Scratch protection
- Creates a 9H Glass layer
- Completely undetectable
- Inhibits bacterial growth
- Easy-to-clean
- Easy-to-apply
- Bubble-free
- Significantly reduces micro-scratches
- With normal use lasts 1 year
- Withstands over 40.000 wiping actions
- For all devices, include “Edge” phones
- Blocks 80% of γ wave radiation Radiation comes in many frequencies. You can’t stop all frequencies, otherwise the phone would not work. The data tells us that the coating is effective at reducing γ wave radiation. We are not claiming the coating inhibits all frequencies, but this facility to interfere with γ wave radiation is significant.



AVAILABLE SACHETS

MOQ: 5.000 pcs. for private label

Art. No.	Sachet Size	Wipe Size
67100	60 x 80 mm	100 x 140 mm
67102	60 x 80 mm	60 x 70 mm
67103	50 x 70 mm	60 x 70 mm



QUALITY STANDARDS

Test	Description
TÜV, MSZ ISO 18593:2008	Microbiological test
TÜV, MSZ 9640/41:1983	Scratch hardness test with spring ball rod
TÜV, MSZ EN ISO 15184:2013	Pencil hardness test
TÜV, Sessile drop method	Water-Repellent, surface tension, contact angles
TÜV, DIN 51 155	Impact test
TÜV, ICP-MS MSZ EN ISO 17294-2:2005	Metal content of the wipes
TÜV, ICP-MS + XRF	RoHs screening test
ASTM D 3363	Wolf Wilburn pencil hardness test
DIN EN ISO 15184	
BS 3900-E19	
DIN EX 13523-4	
ISO 10993-1	Biocompatibility test
ASTM E 2180-07 (Reapproved 2012)	Assessment of Antimicrobial activity (ATCC 6538, 4352 & 15442)
ISO 9001	Anti-Bacterial Test
Martens, Vickers	Hardness test on mobile phone screens
	Radiation Test on mobile phone

PACKAGING & SHIPPING

HS Code: 3208 9019, no DG

Liquid Glass Coating

For all mobile phones incl. „Edge“

LiquiGlas®, Art. Nr. 901

7626 Easy Clean Graffiti Protection

A one pack single coat permanent non-sacrificial coating giving excellent protection against fly poster and graffiti attack. The product allows easy repeated removal of graffiti by using water/detergent. NOT a temporary or sacrificial, semipermanent graffiti protection.

PROPERTIES

- Transparent
- Permanent System (functional for up to 20 years and at least 20 times graffiti removal cycles)
- Graffiti is removable, in most instances
- With cold water and without chemicals
- Easy to re-coat in case of damage

7626 Graffiti Protection is ideally suited for locations which encounter regular graffiti events. It offers enormous flexibility in terms of application. It can be applied to almost all surfaces. The layer itself is also flexible and this characteristic is the reason why graffiti is unable to bond effectively, thus creating a world leading, vandal resistant finish.

It is completely resistant to ALL paints, permanent markers and the majority of acids. Simply wash with water and graffiti disappears and posters just slide off, providing permanent protection against graffiti attack – without ghosting residue.

7626 Graffiti Protection is ideal for (without primer) the following applications:

- Aluminium siding
- Concrete
- Fibreglass
- Glass*
- Masonry (includes brick, marble, stone, tile, granite and concrete)
- Metal*
- Steel
- Street Signs
- Stucco
- Utility Boxes
- Vinyl Siding
- Wood
- Plastic*

**Bonding to polished and smooth surfaces is not as profound as bonding to roughened or porous surfaces.*

Not applicable to plexi glass®

Single Component System – very strong bonding

One coat in most cases is sufficient (some highly porous surfaces may require a non-darkening primer coating or 2 coats of 7626 Graffiti Protection which can be applied within 30 minutes in hot environments and 3-4 hours below 20°C).

Open the can and roll it on. No mixing and no messing means less labour cost. In most instances the coloured variants can be used to „paint over" existing graffiti. Also usable to protect „good graffiti" (graffiti art).

It does not bond strongly to smooth surfaces such as stainless steel.

Tough resilient finish

Unlike most anti-graffiti systems, 7626 Graffiti Protection cures to an easy clean layer – with just one coat. The surface can be cleaned without using any graffiti remover. It is just enough to use a high pressure washer (max. 80 bar) or a brush. The surface offers a long protection lifetime and cleaning cycles over several years.

Rapid Curing

It's easy to apply, so it's not time-consuming, it means low labour costs and the coating is functional within hours.

Prolonged Protection – Zero Ghosting

Graffiti can normally be removed quickly and easily using just water. In most instances graffiti removal liquids are not necessary. It won't show any ghosting.

There is no need for reapplication after the graffiti has been removed. The clear finish does not yellow over time.

Clear and coloured

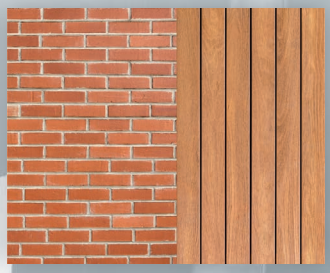
Available in a clear finish and in all RAL colours, MOQ 100L for coloured variants.

Long Term Protection

PACKAGING & SHIPPING

No „Dangerous Goods" shipping fees

HS Code: 3910 0000, no DG



7626 Easy Clean Graffiti Protection

TECHNICAL SUMMARY

Quality	Description
Colour	Clear or pigmented liquid
Dilutable	No
Application	Application with brush roller or airless spray, (can't be applied with a conventional hvlp spray) Airless: - 16 thousand size tip or higher - cleaning: Nappy (white spirit)
Breathable	Yes
Urine-resistant	Yes
Paintable	Only with this pigmented Graffiti Protection 7626, not with standard paints
Volume Solids	78% matt; 78% gloss; 48% pigmented
Recommended Film Thickness	Depending on substrate and porosity, normally between 50-80 microns DFT
Coverage Rate	6 to 8 square metres / litre
Drying Time	Touch dry 3 / 4 hours; full cure 24 hours. Re-coating (if required) time 3 to 4 hours
Brushwash	Disposal
Weight Per Litre	0.90-1.02
Flash Point	Above 64°C
V.O.C.	50 grams per litre
Finish	Gloss – semi matt
Application Temperature	-5°C / +60°C
Storage Temperature	+5-+25°C, out of direct sunlight
Shelf Life	1 Year
High Pressure Cleaner	Max. 80 bar at 30-40 cm distance (flat jet nozzle, NOT dirt milling machine or point jet nozzle, apply the nozzle from the outer edge of the graffiti to be removed)
Surface Preparation	All surfaces must be clean and dry, remove any soiling by power wash etc. Any soiling/graffiti apparent on painted surfaces e.g. masonry/rendered walls should be re-painted with good quality masonry exterior paint, prior to application. Non-darkening primer should be considered for application prior to top coat on all sandstone/brick surfaces.
Bundle	5 litre canister • 20 litre canister
Art. No.	7626-5, 7626-20

Essential Characteristics	Performance	Harmonised Technical Specification
Water Vapour Permeability	Class V2	EN ISO 7783-2
CO_2 Permeability	>S0m	EN ISO 1062-6
Fire Rating	Class 1	BS 476 Part 7
Fire Rating	Class 0	BS 476 Part 6

Private Label

Wet wipes (dispensing tubs round, oval & with hinged lid, dispensing buckets and flowpacks)

Pump spray bottles made of plastic and aluminium, from 7-500 ml, several bottle shapes available

Aerosols

Single/Double sachets

We fulfill your wishes with

- Reasonable prices
- Workable MOQs
- Products Made in Germany
- Upon request our service also includes artwork creation

How to Find Us

Coming from the Autobahn 4 towards Cologne/Köln

Turn right when you reach the Autobahn exit „Overath". At the second traffic light turn right (next to McDonalds) and turn left after the Citroen car-dealer to the industrial area „Diepenbroich". Turn right as soon as possible. CCM will be in the second building on the right hand side.

Coming from the Autobahn 4 towards Olpe

Turn left when you reach the Autobahn exit „Overath". At the next traffic light turn right (next to McDonalds) and turn left after the Citroen car-dealer to the industrial area „Diepenbroich". Turn right as soon as possible. CCM will be in the second building on the right hand side.

Coming from the Autobahn 3 towards Cologne/Köln

Exit the Autobahn when you reach „Lohmar-Nord". Follow the federal highway B484 towards „Overath" (about 10 km). At the crossing in Overath you have to turn right. Drive on to „Engelskirchen" using the B55. After about a kilometre turn left (next to McDonalds) and turn left after the Citroen car-dealer to the industrial area „Diepenbroich". Turn right as soon as possible. CCM will be in the second building on the right hand side.

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