640 Permanent Protect / 7640 Profi Protect

High Performance Coating - Aerospace Grade

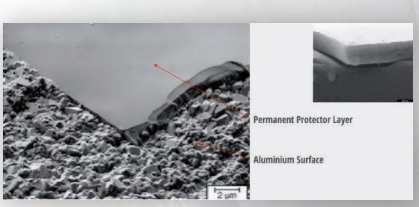
KEY FEATURES

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.