Ceramic Pro ION Top Coat Installation Manual

This document is compatible with:
Product: Ceramic Pro ION Top Coat
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This manual provides information on the recommended application of Ceramic Pro ION Top Coat and the procedures associated with its preparation, curing, and post-application care.

1. Work Area, Equipment & Materials

Before beginning the installation, make sure that the work area meets the required conditions and that all products, tools, equipment, consumables, and protective equipment required for the procedure are available.

Work Area

- Clean, enclosed, dust-controlled work area
- Suitable temperature and humidity conditions in accordance with the product TDS
- Adequate ventilation
- Climate control where required
- Sufficient lighting for application and final surface inspection

Products

- Ceramic Pro Spectrum products required for surface preparation and final cleaning
- Ceramic Pro Nano-Primer, where required during the initial preparation of the ION system
- Ceramic Pro ION Base Coat
- Ceramic Pro ION Top Coat

Tools & Equipment

- Ceramic coating applicator
- Suitable inspection lighting
- Spray gun, where applicable
- Infrared curing lamp(s), where applicable

Consumables

- Microfiber towels suitable for coating levelling and final buffing
- Replacement applicator cloths or pads as required

Personal Protective Equipment

- Protective gloves
- Eye protection, where appropriate
- Respiratory protection, where required by the applicable SDS or working conditions

Tips

Climate Control. Temperature and humidity directly affect the reaction rate of the coating. Higher temperature and humidity generally accelerate product behavior and shorten the available application and levelling windows. Maintaining controlled environmental conditions helps keep installation timing predictable and consistent from one application to another.

Applicator Selection. The supplied applicator may be used, but installers may choose any applicator that suits their working style and the surface being treated. The key requirement is a sufficiently firm applicator that distributes pressure evenly across its contact area, helping produce a more uniform coating layer.

Tool & Product Placement. Avoid placing bottles, applicators, or towels on the vehicle, including at the base of the windshield or on other convenient ledges. Reaching across treated surfaces or accidentally dropping an item increases the risk of damaging or contaminating the coating. A dedicated detailing cart positioned within easy reach is strongly recommended to keep all required products and tools organized, accessible, and away from the vehicle.

Inspection Light. A good handheld inspection light is an essential application tool. Use a powerful, lightweight light with sufficient battery life for a full working day and, preferably, multiple lighting modes. Proper inspection lighting makes it much easier to identify high spots, uneven levelling, residue, and other small defects that can be missed under normal shop lighting.

Infrared Curing Lamps. Not all infrared lamps are equally suitable for coating curing. Short-wave IR lamps are recommended because they transfer energy more effectively into the coated surface and provide faster, more controlled curing. When selecting an IR curing lamp for Ceramic Pro coatings, choose equipment specifically designed for automotive coating applications and using short-wave infrared radiation.

Microfiber Selection. Different application stages require different microfiber properties. For product application, use a low-absorbency microfiber that transfers the coating efficiently to the surface rather than retaining it. For levelling and residue removal, use a more absorbent microfiber capable of collecting excess product cleanly. Using the wrong type can increase product consumption, reduce applied quantity, or leave residue and uneven areas. In all cases, choose soft, lint-free, non-shedding microfiber without hard stitched edges that could mark the surface.

Do Not Overuse Microfiber Towels. Replace microfiber towels frequently, especially those used for levelling and residue removal. As coating accumulates and begins to cure in the fibers, the towel can start to drag, smear, or interfere with proper levelling. Fold and rotate the towel regularly to expose a clean side, and replace it as soon as its performance changes. Microfiber towels are inexpensive compared with the time and effort required to correct a coating defect—when in doubt, use a fresh one.

2. Surface Preparation

Ceramic Pro ION Top Coat is normally applied over properly installed Ceramic Pro ION Base Coat as the second stage of the ION system. The full washing, decontamination, correction, and initial surface-preparation process should already have been completed before the ION Base Coat stage.

Before applying ION Top Coat, confirm that the ION Base Coat surface is clean, dry, uniformly levelled, and free from dust, residue, high spots, streaks, or other visible defects. Any application defect in the Base Coat should be addressed before proceeding with the Top Coat.

Do not wash, degrease, polish, or apply unrelated preparation products between ION Base Coat and ION Top Coat unless a corrective procedure specifically requires it. Additional chemical or mechanical treatment may interfere with the intended ION system build.

If the Base Coat becomes contaminated or the specified application window is exceeded, stop and determine the appropriate correction or re-preparation procedure before applying ION Top Coat.

Preparation Over Ceramic Pro ION Base Coat

Under normal ambient curing at 22–27 °C, allow the final ION Base Coat layer to cure for approximately 1.5 hours before applying Ceramic Pro ION Top Coat.

As an alternative, IR-assisted curing may be used. Heat the coated surface to 45 ± 5 °C and maintain this surface temperature for approximately 30 minutes before proceeding with ION Top Coat.

After IR-assisted curing, allow the surface to return to a suitable application temperature before applying ION Top Coat. Confirm that the Base Coat remains clean, dry, and free from contamination.

> Ceramic Pro Nano-Primer is used only during the initial substrate preparation before ION Base Coat. Do not apply Nano-Primer between ION Base Coat and ION Top Coat.

Workflow

The following sequence represents the standard preparation workflow recommended before Ceramic Pro coating application:

ION Base Coat Application → Base Coat Inspection → 1.5 h at 22–27 °C or IR 45 ± 5 °C / 30 min → Confirm Clean, Dry Surface → ION Top Coat Application

Tips

Use Ceramic Pro Spectrum for Surface Preparation. Suitable third-party detailing products may be used during cleaning and preparation, but we strongly recommend Ceramic Pro Spectrum whenever possible. The reason is practical: Spectrum products are tested for compatibility with Ceramic Pro coatings and are the products we work with directly, understand in detail, and continuously evaluate through testing and real-world installation experience. When an unusual preparation-related problem occurs, knowing exactly which products were used makes diagnosis much easier. We can draw on known product behavior, compatibility data, and previous field cases rather than trying to account for one of many unfamiliar third-party formulations available on the market. This allows us to provide faster and more reliable technical support and reduces unnecessary variables during preparation and installation.

Do Not Rush Surface Inspection. Take the time to inspect the surface carefully at every stage of preparation and installation. Finding a defect early is far easier than discovering it after the coating has been applied and having to correct or repeat the work. Always use a professional inspection light in addition to normal shop lighting, as some defects, residues, or uneven areas may otherwise be difficult to see.

3. Application

1. Prepare the Work Area

Before beginning the installation, confirm that the work area, tools, products, and consumables are fully prepared and within easy reach. Make sure the working environment is clean, controlled, and suitable for coating application.

For the most predictable and consistent results, we recommend working at 25 °C and 50% relative humidity. The application timings and behavior described in this manual are based on these reference conditions. Significant changes in temperature or humidity may affect coating reaction speed and shorten or extend the available working windows.

Complete this check before opening and applying the product. Once application begins, unnecessary interruptions should be avoided.

2. Prepare the Product

Before use, shake the product thoroughly for approximately 40–60 seconds to ensure that the formulation is properly mixed and ready for application.

Open the bottle carefully, as slight internal pressure may occasionally be present.

Before applying the coating to the surface, we also recommend performing a quick visual product check. Dispense a few drops onto a clean piece of glass, white card, or another suitable inspection surface and confirm that the product appearance corresponds to the description stated in the TDS. Check for any unusual color, cloudiness, particles, flakes, or other visible abnormalities.

This check is precautionary and normally takes only a few seconds, but it can help identify a rare product issue before application begins.

Application Method A — Applicator Application

1. Prime the Applicator

Use a clean, dry applicator suitable for ceramic coating application. Before treating the first section, apply enough product to evenly prime the working surface of the applicator.

The applicator should be uniformly loaded, but not excessively saturated or dripping. During installation, replenish the product regularly to maintain consistent transfer to the surface.

2. Select the Working Area

As a general reference, work with sections of approximately 60 cm × 60 cm.

The working area may be reduced when treating complex shapes or when temperature, humidity, or product behavior results in a shorter working window. Larger panels such as the hood or roof should normally be divided into several manageable sections.

Work systematically and follow a consistent sequence around the surface.

3. Apply the Coating

Apply the product using smooth, controlled zigzag movements with light and even pressure. Do not press down on the applicator.

Slightly overlap adjacent passes to ensure complete and uniform coverage without untreated areas. Maintain a consistent application pattern across the entire working section.

Avoid excessive pressure and unnecessary repeated passes. The objective is to distribute a consistent amount of product evenly across the entire working section.

4. Allow the Product to Flash

After completing the section, allow the coating to flash before levelling.

At the reference conditions of 25 °C and 50% relative humidity, the typical flash time is approximately 30–60 seconds.

This timing is a reference rather than an absolute limit. Temperature, humidity, substrate condition, applied quantity, and installer technique can all affect product behavior. Higher temperature and humidity generally accelerate the reaction and reduce the available working time.

Observe the coating during application and begin levelling while the product can still be redistributed and removed cleanly.

> **What is flashing?** Flashing is the stage at which the freshly applied coating begins to change from a freely flowing liquid into a more viscous, partially set layer and becomes ready for levelling.

If you are unsure when this occurs, observe the first treated section rather than relying only on the clock. View the surface at an angle of approximately 45° and slightly change your viewing angle from side to side. As flashing begins, a faint iridescent or rainbow-like haze will start to appear on the surface, similar to the subtle colors seen in a thin oil film on water. Once this effect becomes visible, proceed with levelling and wipe-off.

5. Level the Coating

Use a clean microfiber towel to gently level the coating and remove excess product. Work with light pressure and controlled movements, ensuring that the product remains evenly distributed across the treated area.

Follow with a second clean microfiber towel for the final wipe and to remove any remaining residue.

Rotate and refold the towels frequently to expose a clean working side. Replace a towel whenever coating accumulation begins to affect its movement or absorption.

6. Inspect the Section

Immediately inspect the treated area using a professional inspection light from multiple angles.

Check for:

- High spots;
- Streaks or smearing;
- Uneven levelling;
- Excess product;

- Missed areas or incomplete coverage.

Correct any irregularities before moving to the next section. Do not leave visible defects to be corrected after the coating has begun to cure.

7. Continue the Application

Repeat the same procedure section by section until the required surface has been completely coated.

Maintain a consistent working sequence and slightly overlap adjacent sections to avoid untreated boundaries.

For installations requiring multiple layers, note the application sequence and timing of the first layer. Apply subsequent layers in the same panel order so that the required intercoat interval is maintained consistently across the entire surface.

8. Apply Additional Layers

Where multiple layers are required, allow the previous layer to settle for the specified intercoat interval before applying the next layer.

Where an additional ION Top Coat layer is required, the recommended interval is approximately 1.5 hours at 22–27 °C. Do not apply the next layer sooner than 60 minutes, and do not exceed a 2-hour maximum intercoat interval under normal ambient conditions.

Track the interval for each treated area rather than simply waiting a fixed period after completing the entire vehicle. Begin the next layer on the same panels in the same sequence used for the previous layer.

IR-assisted curing may be used between ION Top Coat layers. Heat the coated surface to 45 ± 5 °C and maintain this surface temperature for approximately 30 minutes before proceeding with the next layer.

If the specified maximum intercoat interval is exceeded, determine the appropriate re-preparation procedure before applying another ION Top Coat layer.

9. Perform Final Application Inspection

After completing the final layer, inspect the entire treated surface carefully under dedicated inspection lighting.

Confirm that the coating is uniformly levelled and that no high spots, streaks, residue, missed areas, or other visible application defects remain.

Once the final ION Top Coat layer has been inspected, proceed to the post-installation curing and handling requirements below.

Product Combinations

This product may be combined with other compatible Ceramic Pro products to create a complete protection system or to maintain and enhance its performance over time. The combinations below indicate the role of each product and the recommended application order.

Role of This Product

System Role: Top Coat / Finishing Coat

Compatible Products

Ceramic Pro ION Base Coat

Role	Base Coat
Application Order	Before Ceramic Pro ION Top Coat
Combination Requirement	Mandatory for the Ceramic Pro ION system
Waiting Time Before Application	1.5 hours at 22–27 °C; alternatively, IR-assisted curing at 45 ± 5 °C surface temperature for 30 minutes

Ceramic Pro ION Base Coat is the required first stage of the ION system. It establishes the primary coating thickness and protective foundation. ION Top Coat is applied afterward to activate the ion-exchange process, establish strong hydrophobic and self-cleaning performance, and complete the intended ION protection system.

Required System Combination

Ceramic Pro ION Base Coat → Ceramic Pro ION Top Coat

Ceramic Pro ION Top Coat is the required finishing stage of the Ceramic Pro ION system. It should be applied over ION Base Coat in the specified sequence to activate the ion-exchange process and achieve the intended system performance.

Post-Installation Curing & Handling

After the final Ceramic Pro ION Top Coat layer has been applied, the completed ION system still requires time to cure and develop its intended properties. During this period, the treated surface should be protected from conditions that may interfere with the curing process.

Initial Cure & Movement: 1 hour

For the first 1 hour after application of the final ION Top Coat layer, keep the coated surface in a clean, dry, controlled environment. Avoid touching the surface or exposing it to water, dust, chemicals, mechanical contact, or other contamination.

After approximately 1 hour, the coating reaches its tack-free state and the treated object may be carefully moved or transported. The curing process is still ongoing.

Release for Service: 24 hours

After 24 hours, the coated vehicle or surface may be released for service or delivery, provided it can remain protected from water and adverse conditions during the remaining restricted period.

Water Contact: 24 hours

Avoid contact with water and other liquids for the first 24 hours after application of the final ION Top Coat layer.

Full Chemical Cure: 7 days

After 7 days, the completed ION system reaches full chemical cure. Restrictions related specifically to chemical curing are no longer required, but detergent washing should still be avoided until the washing interval below has elapsed.

Washing: 7–10 days

Do not wash the coated surface with detergents for 7–10 days after installation. After this period, normal coating-safe washing and maintenance procedures may resume.

4. Aftercare

Proper aftercare helps preserve the appearance and hydrophobic performance of the completed Ceramic Pro ION system for as long as possible. The installer should explain the following recommendations to the customer when the treated vehicle or surface is delivered.

Routine Care

Advise the customer to remove significant contamination reasonably promptly rather than allowing it to remain on the surface for extended periods.

Unnecessary washing should be avoided. Ceramic Pro coatings are designed to reduce contaminant adhesion and support self-cleaning behavior, so if the surface is already clean, additional washing provides little benefit and only introduces unnecessary mechanical contact.

When washing is required:

- use mild, coating-safe cleaning products whenever possible;
- avoid aggressive chemicals unless they are genuinely required to remove specific contamination;
- use soft, clean wash media and fresh microfiber towels;
- avoid hard brushes, abrasive tools, or other aggressive physical contact;
- dry the surface with clean, soft microfiber towels.

Ceramic Pro Shampoo is recommended because it is designed for use with Ceramic Pro coatings, although other suitable pH-neutral or coating-safe shampoos may also be used.

Professional and Automatic Car Washes

When using a commercial car wash, recommend facilities that understand how to maintain coated and protected surfaces and use gentle washing procedures.

Where convenient, the customer may return to an authorized Ceramic Pro center for maintenance washing, where the coating can be cleaned and inspected using appropriate procedures.

Automatic car washes are generally not recommended because the condition of the brushes, wash media, and chemicals cannot always be controlled. Occasional use will not normally cause immediate coating failure, but repeated aggressive washing may accelerate surface wear and reduce hydrophobic performance.

Loss of Hydrophobic Performance

With the completed Ceramic Pro ION system, a gradual reduction in hydrophobic performance does not necessarily indicate that the underlying ceramic protective layers have failed. Hydrophobic properties are among the surface characteristics most directly affected by contamination, washing frequency, mechanical contact, and environmental exposure.

If hydrophobic performance decreases, recommend one of the following maintenance options depending on the customer's needs:

Ceramic Pro Care — DIY Maintenance Ceramic Pro Care is suitable for simple consumer maintenance and can be applied without professional installation. It restores a fresh hydrophobic surface layer and typically maintains enhanced water repellency for approximately 1–3 months, depending on operating and environmental conditions.

Ceramic Pro Care+ — Professional Maintenance For customers who prefer professional maintenance, Ceramic Pro Care+ provides a more durable hydrophobic treatment. Its application is more demanding than Ceramic Pro Care and is therefore better suited to professional installation.

Ceramic Pro ONE — Coating Refresh / Upgrade Where more substantial restoration is required, Ceramic Pro ONE may be applied professionally to renew hydrophobic performance and add an additional protective ceramic layer. This option is particularly suitable where the existing coating requires more than routine hydrophobic maintenance.

In some cases, the condition of the existing coating may justify additional correction, preparation, or application of another compatible coating layer. The installer should inspect the surface and select the appropriate maintenance procedure based on its actual condition.