



TCW GRAPHONIX PENTA TDS & APPLICATION GUIDE

Introducing Graphonix Penta, a 5 Year Graphene Ceramic Paint Coating. This coating offers an unparalleled combination of dazzling high gloss, vivid depth of colour and extreme slickness bringing out the true essence of a vehicles paintwork.

Infused with a specific grade of graphene, this coating creates a strong and durable layer on your vehicle's paint, protecting it from scratches, UV rays, acid rain, and other types of damage. This graphene coating provides unparalleled protection and is designed to last up to 5 years, making it a worthwhile investment for anyone who wants to keep their vehicle looking like new for longer.

Engineered for convenience, it can be effortlessly applied, ensuring a flawless finish without the need for expensive accreditation.

What sets Graphonix Penta 5 Year Graphene Ceramic Paint Coating apart is the smooth and simple application coupled with increased hydrophobic behaviour, gloss and incredible slickness.

At the heart of the coating is our cutting-edge hybrid graphene ceramic technology, known for its exceptional strength and flexibility, offering superior protection against scratches, UV rays and environmental pollutants.

Technical:

Appearance – Black Translucent

Binder – Organic Silazane

Carrier – Low VOC

Thickness – ~1um – 2um nominal

Contact Angle – 97°

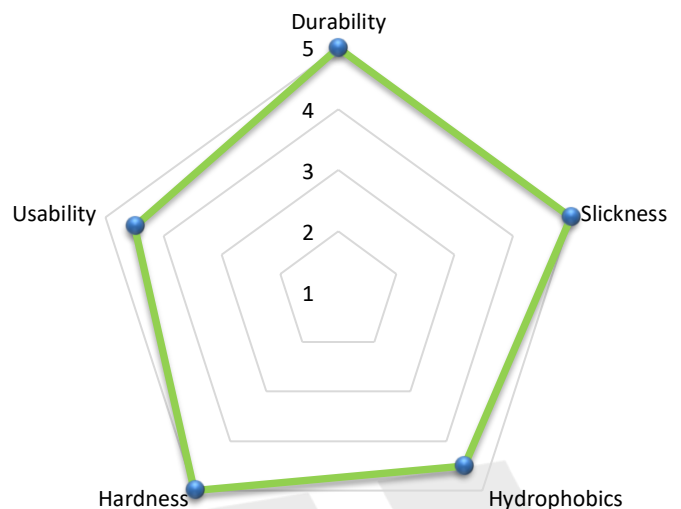
Hardness – 9H (surface dependent)

Multiple Coats – Can be layered

Useable – 4 Hours

Full Cure – 7 days after application

Application & Maintenance – See Next Page





Application Instructions

General

- Products should be used in a well-ventilated area.
- Always refer to the Safety Data Sheet (SDS) and product label prior to use (SDS available on request).
- Wear appropriate PPE according to the information provided in the SDS, on the label and if you are still unsure please contact us via phone or email.
- Always store products in a cool, well-ventilated area keeping containers tightly closed.

Important Points To Remember

Surface Preparation

For effective adhesion and therefore longevity, preparing the surface for the product is essential and using the graphene ceramic coating alone without proper preparation may lead to a short-lived final finish.

The product cross-links to the surfaces that it's applied to. Surface cleaning & degreasing is an essential part of the process to ensure that there is no contamination between the product and the surface to be protected.

It is also important the surface has been prepared to the highest standard prior to applying the coating as once applied, it will seal in the surface underneath so if marring, scratches etc are present it is highly recommended paint correction is carried out prior to the applying the coating to bring the surface to the desired finish first.

Rain & Wind

As with most coating products, it should be applied in a clean, dry environment with no rain forecast for a minimum 4-hour period if application is outside. If strong winds are present we recommend coating does not take place due to the coating flashing off too quickly.

Temperature

Avoid applying in direct sunlight and where possible ensure application does not take place during the hotter parts of the day. We recommend early morning and late afternoon for best results. The coatings should be applied in an ambient temperature above 5°C and no higher than 35°C. The coating can be applied outdoors as with all our coating products. This temperature range also applies to the surface temperature of the substrate and temperature must stay within these parameters for a minimum of 12 hours following application.

Curing

Following application the coating will need to be allowed to cure. The coating must not go out into rain for the first 4 hours following the completion of application. Ideally the coating will be allowed 12 hours of curing before going into the elements. As the coating continues to cure for up to 7 days the vehicle should not be washed for the first 7 days following the coating being applied.

Preparation, Clean & Decontamination

To Remove Any Contamination

Firstly, thoroughly wash / clean the vehicles paint surface ensuring all contaminants have been removed. Using a de-greaser, thoroughly de-contaminate the surface, removing any remaining residues from waxes, silicones and any other contamination ensuring a strong bond between coating and paint. For heavily contaminated surfaces or used surfaces a full polish/detail may be required to get the paint finish to an acceptable standard prior to coating.



Applying A Degreaser

1. Start by wiping the entire surface to decontaminate and remove any waxes / silicones.
2. Use a dry wipe / soft cloth to remove the excess fluid, creating a clean, contaminant free, dry surface.
3. If a cloth becomes dirty / black replace with a fresh cloth.
4. With this process you are looking to thoroughly clean and de-contaminate the surfaces to be treated to ensure a complete bonding of The Ceramic Warehouse product.
5. It is important that the finish of the surface at this point is to the clients' satisfaction. If not, then full polishing/detailing of the surface will need to be carried out and then processes 1-4 above will need to be repeated.



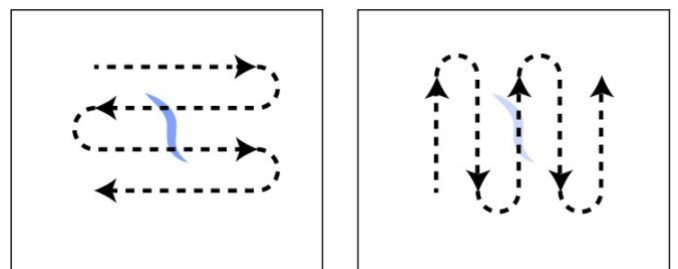


Applying The Coating

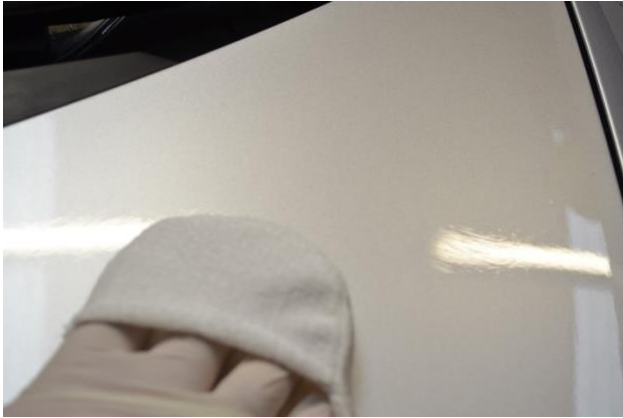
1. Take a fresh application pad and dampen with the coating until it is wet, but not dripping.



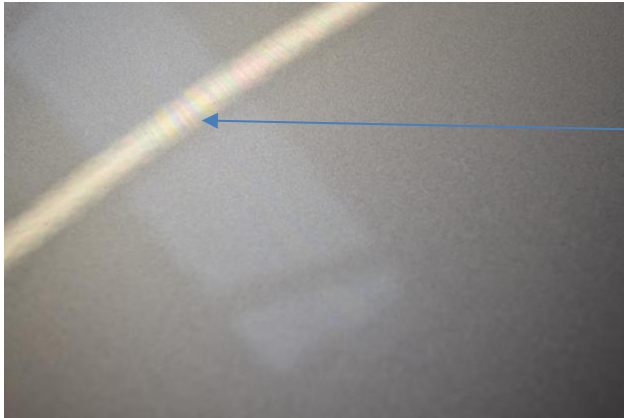
2. Coat one area or up to 2 square metres at a time, ensuring on each panel to work horizontally, then vertically, for an even spread of product (also known as cross-hatching).



3. The area should look wet and have a rainbow appearance after approximately 1-3 minutes. If you notice the rainbow appearance very quickly after application this is a sign that you have not applied enough product. If you are not keen on waiting for the product to flash then an alternative method of application is to work the product into the surface for 1-2 minutes and then move onto the buffing stage highlighted in the next step.



4. After a minimum of 1 minute, but not exceeding 5 minutes, when you see the rainbow effect appear, take a clean microfiber cloth and go back to the point where coating started.



5. Now gently buff all the areas that have been coated in order to remove the excess residue initially.
6. Due to the make-up of these particular products it is likely that a little more time will need to be spent on the levelling process. Our recommendations are to utilise one cloth to remove the initial excess product as per step 5. We then recommend that a second cloth is taken to level the majority of the coating. What you will then likely see under inspection light is a slight haze / smear effect. This is where the extra levelling is to be done.
7. Ensure the extra levelling is done with a clean unused side of the cloth and very gently wipe along the surface in essence thinning out the coating until the smears can no longer be seen and you have the perfect finish. Keep turning the cloth to a new clean side after a few passes to ensure proper levelling and not re-spreading of the coating.



8. Once you have finished buffing, repeat the process on the other areas of the surfaces to be coated continuing as above.
9. For a speedier process, use multiple people in a production style, one operative applying with one or two operatives following shortly after in synchronisation leaving the recommended time as per the previous steps for cross-linking between the application and removal.



TIP – If the product has been left on for too long and is difficult to remove and create a nice shine, re-wet the area with an application pad, allow to dwell for up to 1 minute and instantly buff to a shine with a microfiber cloth. This can be done for approximately 10 minutes after the buffing stage has taken place. Do not allow to cure with streaks and rainbows!



Product Maintenance

Once the coating has been applied, do not wash for the first 7 days.

Only use pH Neutral cleaners on the coated surface for regular weekly / 2 weekly washing. We recommend our pH Neutral Snow Foam & pH Neutral Shampoo. Always use a wash mitt and drying towel for contact washes. The 2-bucket wash method should be used where possible to reduce the risk of marring and scratches during the washing process.

Once every 3 months we recommend a deep clean wash utilising the following TCW products:

- High Alkaline Snow Foam
- Citrus Wash
- pH Neutral Snow Foam
- pH Neutral Shampoo
- Ceramic Detailer or Foam & Rinse

Apply the Citrus Wash to the vehicle first and then apply the High Alkaline Snow Foam over the top to allow plenty of dwell time. Ensure the products do not dry out and then rinse clean. Now carry out your usual wash methods as per the instructions above utilising the Shampoo & Snow Foam. Finish off by applying the Ceramic Detailer or Foam & Rinse product or alternatively you can apply Ceramic Spray every 6 months.

By following the above guidelines it will ensure the coating remains well looked after ensuring durability out of the protective coating. Proper maintenance will see results of up to 5 years from the coating before re-application is required.