

TITAN
COATINGS

DARKMATTER
TECHNOLOGY

PRODUCTS LIST 2023





ELASTOMER COATING TECHNOLOGY

Elastomeric coatings are the new generation of protection. This technology has the following advantages:

- . Thicker layers compared to ceramic coatings.
- . Dedicated to protect Paint systems, Vinyl, PPF, and PPS.
- . Very high resistance to water residues, insects, and bird droppings.
- . Chemical Resistance, almost full scale chemical resistance 1-14 pH levels.

The most potent bases & acids!

- . Self-healing of small damages.
- . Self-leveling and self-healing of minor scratches with the influence of heat.
- . Maximum thermal resistance up to 1,500 degrees Celsius - polysilazanes.

More substantive information can be found at

DARKMATTER
TECHNOLOGY

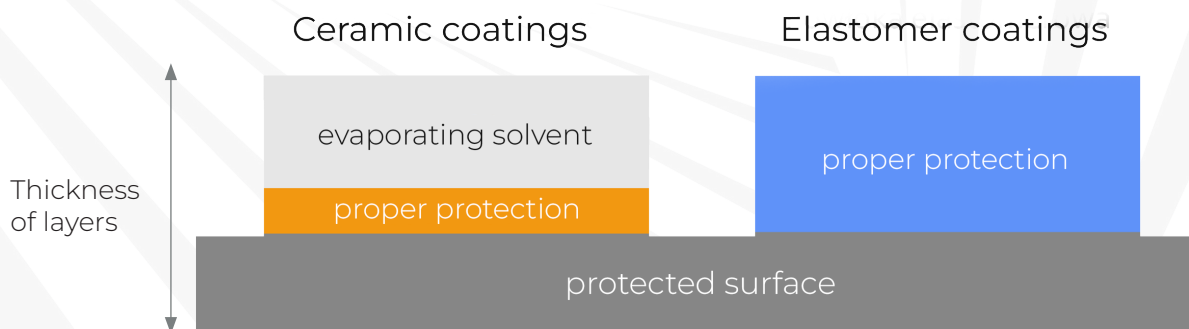
ELASTOMER VS CERAMICS

Ceramic coatings have some disadvantages that make them unsuitable for various applications. The solid fractions of ceramics are composed mainly of quartz, making them relatively hard and stiff. This property makes ceramics brittle and susceptible to micro-cracking, making them unsuitable for applications that require flexibility. Additionally, ceramics have a low ability to absorb impacts, which makes them prone to breaking and cracking when subjected to stress. Moreover, ceramics lack the self-healing capability of elastomers, and when they experience stress, they tend to crack and propagate until the material fails.

In contrast, elastomers are much better than ceramics due to their unique properties. Elastomers have a high capacity for self-healing and can recover their original shape after reaching their softening point. This property makes them highly resistant to wear and tear, making them ideal for applications that require durability. Furthermore, elastomers are inherently flexible, which makes them highly suitable for applications that require materials to bend and stretch without breaking. Elastomers have a much greater thickness compared to ceramics and can withstand a wide range of temperatures without cracking or breaking.

If you look at this phenomenon at the microscopic level, it turns out that approximately a quarter-micron layer of quartz bends along with the clear coat layer at the furthest, and it is the paint itself that shows little flexibility/self-leveling. In the case of elastomer, with similar material consumption, we have 1 to 2 microns (correct - micrometers) and much greater thickness and, above all, a real self-healing capacity.

In conclusion, ceramic coatings have several disadvantages that make them unsuitable for various applications. Elastomers are much better than ceramics because they are highly flexible and have a high capacity for self-healing. Elastomers are durable and highly resistant to wear and tear making them ideal for a wide range of applications. It is essential to understand the unique properties of these materials to choose the right option for a particular application. Therefore, when it comes to choosing between ceramics and elastomers, elastomers are the clear winner.



PX10

Parameters:

Coating type: base coat

Durability: up to 6 years

Contact angle: 105 degrees

Thickness: max 12 microns

Thermal resistance: -40 ° C
+ 600 ° C

Chemical resistance: 1-14 pH

Self-healing ability: none

Expenditure: 15-20 ml per layer



Super
underlay



Self-cleaning
and oleophobic



Deep shine and
resistance against
UV / UVB



Special
resistance against
chemicals

PX10 - reinforcing undercoat with phenomenal properties such as «armor priming» and stabilizing even the softest paints that are difficult to process. This also applies to the possibility of strengthening the gel coat used for the production of jet skis, motor boats, and yachts. PX10 is used to create thick, stable base layers that can be used to apply other Titan products. The entire coating will also gain additional smoothness, transparency, and uniform thickness. The smoothness will also facilitate the beading of water. The PX10 is suitable for automotive, aerospace, marine, etc. Is suitable for all exterior surfaces except glass and PPF protective film.

Compatible as a super underlay for Zeus, VulcanTX155, Hydro TX145.



ZEUS

Parameters:

Coating type: base or standalone coating

Durability: up to 10 years in two layers

Contact angle: 120 degrees

Thickness: max 5 microns

Thermal resistance: 600 ° C

Chemical resistance: 1-13 pH

Self-healing ability: regular

Expenditure: 15-20 ml per layer



Limited
adhesion of
insects



Self-cleaning
and oleophobic



Special
resistance against
chemicals



Deep shine and
resistance against
UV / UVB

Zeus is our leading coat that contains refined carbon-glass formula HyperQuartz Carbon. It is one of the most advanced coatings on the market, combining organic and inorganic chemistry. Zeus creates a sheen with amazing depth and enhanced clarity as a standalone coating if applied over PX10 primer. One of the best-advanced combinations is the use of Zeus under two layers of Vulcan TX155. Contrary to the belief that only harder coatings are suitable for automotive paints, laboratory tests have shown that harder coatings are more exposed to physical damage.

The Zeus coating, on the other hand, acts as an elastomer, which provides flexibility and hardness, which allows it to provide better protection, water repellency, and self-leveling ability. Drying time in between layers is 2 hours. The coating is resistant to weather conditions after 24 hours. Full chemical and mechanical resistance are obtained after 7 days.

We recommend maintenance with Titan Coatings Dark Ultra 3.0 approximately every 3-6 months.



VULCAN

TX155



Parameters:

Coating type: stand alone coat or top coat

Durability: up to 6 years

Contact angle: 115 degrees

Thickness: max 5 microns

Thermal resistance: 600 ° C

Chemical resistance: 1-13 pH

Self-healing ability: strong

Expenditure: 10-20ml per layer

Vulcan TX155 is a revolutionary flexible hybrid membrane that provides permanent hydrophobicity, oleophobicity, and exceptional chemical resistance. It is considered by many applicators as the coating that gives the greatest color depth. It achieves spectacular results as a top coat for DM PX10. Vulcan TX155 contains Extreme silane hydrocarbon technology Performance Series, which forms an elastomeric membrane when cured similar to hard rubber, Extrem resistant to water and insect stains.



Limited
adhesion of
insects



Self-cleaning
and oleophobic



Capacity
for regeneration



Special
resistance against
chemicals



Deep shine
and
resistance against
UV / UVB

Vulcan TX155 is great for covering surfaces in gloss, satin, or mat: paint, colorless PPF foil, vinyl foil (gloss / satin / matte), plastic, metal, or carbon fiber.

Note: Vertical application only (up - down) or horizontally (left - right) - cross application causes lapping problems on dark colors. An infrared (IR) heater can be used to speed up the crosslinking process so-called «drying» (we recommend not exceeding the temperature of 60 degrees C of the panel for 15 minutes, and in the case of used cars, not to exceed 45 degrees C for 15 minutes).

We recommend maintenance with Titan Coatings Dark Ultra 3.0 approximately every 3-6 months.



APOLLO

TX130

NEW PRODUCT!



Parameters:

Coating type: stand alone coat

Durability: up to 5 years

Thermal resistance: 600°C

Chemical resistance: 1-14 pH

Self-healing ability: strong

Expenditure: 5-15ml per layer

The Apollo TX130 coating has been developed specifically to protect PPF and vinyl films.

Apollo TX130 contains the most advanced formulation on the market, combining ingredients organic and inorganic with unique carbon forms to maximize chemical resistance while minimizing minor distortion of the PPF film.



Limited
adhesion of
insects



Self-cleaning
and oleophobic



Capacity
for regeneration



Special
resistance against
chemicals



Deep shine and
resistance against
UV / UVB

The Apollo TX130 membrane is highly flexible, hydrophobic and oleophobic. Thanks to the elastomer-based components, it has a positive effect on the surface self-regeneration process.

So Apollo is another unique piece of chemical engineering that offers best-in-class film protection support. This is due to the fact that, unlike the foil surface, it is not tense, retaining the self-levelling and regeneration function for longer, and is more chemically resistant. In addition, it facilitates washing and keeping the foil clean.

Apollo TX130 is available for all professional detailing studios.

You will get the best effect of coating protection when the foil is deprived of the hydrophobic layer (by polishing or waiting until it wears off automatically) - the recommendation applies to glossy foil.

HYDRO

TX145



Parameters:

Coating type: top coat

Durability: up to 3 years

Contact angle: 105 degrees

Thickness: max 100 nm

Thermal resistance: -40 ° C
+ 600 ° C

Chemical resistance: 1-14 pH

Self-healing ability: none

Expenditure: 10-15ml for layer



Limited
adhesion of
insects



Self-cleaning
and oleophobic



Extremely
slippery
varnish



Special
resistance against
chemicals



Deep shine
and
resistance against
UV / UVB

The flexible **Hydro TX145** nanomembrane coating contains ultra-advanced ingredients that provide exceptional smoothness, slickness, hydrophobicity, oleophobicity, and chemical resistance.

Hydro's Dark Matter® Technology is made to cover PX10, Zeus, and our partners most favorite 'Vulcan TX155'. In addition, the manufacturer has optimized several important parameters, such as the non-sticking of insects or water residues.

HYDRO TX145 is a top coat dedicated to elastomers providing exceptional slipperiness and chemical resistance. Among the Titan Coatings, Hydro is the least sensitive to the adhesion of mineral deposits from water.

HYPERGLASS

Parameters:

Durability: up to 5 year or 25k km in two layers

Contact angle: 110 degrees

Thickness: max 100nm

Thermal resistance: 600 °C

Chemical resistance: 1-13 pH

Expenditure: 5-8 ml for two layers



Limited adhesion of insects



Self-cleaning and oleophobic



Special resistance against chemicals



Water discharge from 50 km/h



Security while driving in the rain

HYPERGLASS is a revolutionary hybrid coating designed for frontal windows protection and also side windows, containing 3 types of nano-particles of the highest quality.

Being part of the Extreme Performance series - **HYPERGLASS** is an extremely durable, chemical-resistant coating - providing an ultra-smooth surface with low surface tension, giving a small angle of water beading. Treated windshields become hydrophobic, non-stick and provide better visibility.

HYPERGLASS has been subjected to improved cyclic wiping tests up to 8,000 cycles with a 5% loss of contact angle from 110° to 104.5°.

Attention!

Replace the wiper blades with new ones and coat them as well.



PYRO

Parameters:

Durability: up to 10 years

Contact angle: 105 degrees

Thickness: max 4 micron

Self-healing ability: 1500 ° C

Chemical resistance: 1-13 pH



Exceptional
thermal
resistance



Special
resistance against
chemicals



Limited dust adhesion
from brake pads

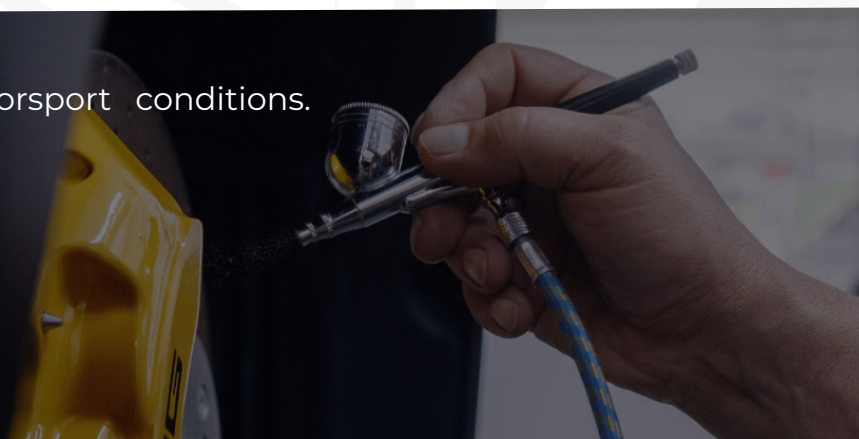


Self-cleaning
and oleophobic

Pyro is a coating for light metal rims and brake calipers, but also for components of the exhaust system and turbochargers. The technology used allows the thin coating to withstand temperatures up to 1500 ° C. Protected surface provides hyper slippery and repels all dirt, both road and those resulting from the wear of brake pads.

High thermal resistance makes it much easier to clean off the rims dust from brake pads and discs. Even melted metals are not able to blend into the elements of the running wheels because their temperature is several hundred degrees lower than what the Pyro can withstand. Sticking deposits due to the centrifugal forces acting on wheels are easy to remove too. There is basically no surface in the car hot enough to melt Pyro. This, in turn, allows you to effectively protect exhaust systems, brake systems, and other high temp parts of the engine.

Pyro can be used in extreme motorsport conditions.



TRITON

TX550

Parameters:

Coating type: base and top in one

Durability: 3 years below the waterline, 5 years above the waterline

Layering / «sandwiches»: with Hydro TX 145

Thickness: max 5 microns

Stiffness: 9H

Thermal resistance: 600 °C

Chemical resistance: 1-13 pH



Limited sticking
of lichens



Self-cleaning
and oleophobic



Special
resistance against
chemicals



Smaller
water
resistance

Elastomeric membrane coating containing modern raw materials for forming a very dense, yet flexible protection. Dark Matter Technology® significantly increases the chemical resistance of the coating and its hydrophobicity. In addition, it is designed to fit perfectly for different materials.

A good example of the versatility of this coating is the ability to protect gelcoat and fiber-reinforced materials like fiber glass used in jet skis, yachts, and motor boats.

The concept of Triton is based on a very ecological approach to the adhesion of microorganisms to the hulls of vessels. Unlike the case anti-fouling paints, it does not emit toxic substances that poison lichens. Instead, the smoothness and anti-stick properties of the coating make it difficult for living organisms to stick to the fuselage. This also translates into lower resistance in contact with water, which increases speed by about 2 knots. As a result, fuel or energy consumption of electricity is lower - depending on the type of drive used.

The coating is basically invisible,
which has a very positive effect on
aesthetic values.



TRITON VS ANTI-FOULING PAINT

Comparision table

Properties	Triton TX 550	Anti-fouling paint
Preparation	Polishing*	Sanding/tarnishing
Underlay	None or 1x PX10	2 layers
Number of layers	1	3
How it works	Complicates sticking	Poisons biological life
Durability	3 years, 5 on the water	2 years
Water resistance	None	On average 2 knots slower
Toxicity	None	Yes
Weight/m2	A few grams	Several hundred grams
Coating color	Transparent	Transparent or optional

* We encourage you to contact us regarding the selection of appropriate pastes and tools for polishing the surface of the yacht.



COATING SET SUGGESTION FOR SPECIFIC CASES

The following examples are our recommendation for specific users, based on our experience and customer feedback.

Urban daily

low mileage (10 - 20 thousand km per year)

A car that the customer will use mainly in the city. Little attention is paid to the regeneration of the coating. In this case, the budget and great car looking properties are important. We recommend especially for light varnishes (white, pearl white).



PX10 + Hydro TX145



HyperGlass



Pyro



A car for longer journeys and regular care

significant mileage (30 - +50 thousand km per year)

A car that is mainly used for work and long distance travel. The clients have little time for care, but they want the most uncompromising solution. Schedules regular hand wash visits.



PX10 + Vulcan TX155



HyperGlass



Pyro



COATING SET SUGGESTION FOR SPECIFIC CASES

A car for longer journeys and irregular care

significant mileage (30 - +50 thousand km per year)

A car that is mainly used for work and long distance travel. The client has little time for care and wants the most uncompromising solution. No regular hand washing.



PX10 + Vulcan TX155 + Hydro TX145



HyperGlass



Pyro



Budget variant

Low mileage (2 - 10 thousand km per year)

The customer pays little attention to the condition of the car, but he cares about basic paint protection against insects, chemicals, and atmospheric conditions.



PX10 + Ultra 3.0



HyperGlass



Pyro



COATING SET SUGGESTION FOR SPECIFIC CASES

Weekend/classic car

Low mileage (2 - 10 thousand km per year)

A car intended for occasional trips or used at weekends. The owners do not use the auto in winter. He only goes out when the weather is good.



Zeus



HyperGlass



Pyro



COATINGS - LIST OF PROPERTIES



Scan to go to the technical data table



ORDERS

Price list 2023 is confidential

More information or Placing orders, send a request to: _____

Shipping Fee would be waived for large orders.

Checks, wire transfer or ACH payments are accepted.
Credit cards and debit cards payments are subject to fee

More substantive information can be found at

DARK**MATTER**[®]
TECHNOLOGY

TITAN
COATINGS