

Technical Data Sheet – Crystilium™

Description

Crystilium™ is a clear coat system which protects hard surfaces. it has been developed to ensure increased surface aesthetics due to its long-lasting gloss and excellent protection against stains on marine paints and gel-coat.

- **Performance:** Highly transparent ultra-thin protective layer. easy to clean, stain-free surfaces for 2+ years.
- **Appearance:** glossy, tough coating that protects underlying substrate against weathering and restores previously weathered surfaces and colours to a bright, high gloss appearance.
- **Technology:** Latest generation permanent clear coat.
- **Quick application:** Crystilium can be applied quickly in or out of the water. Low environmental impact.
- **Compatibility:** Coating will not dissolve, soften, or remove paint or decals that are part of substrate being coated. Works on marine topside paint, polyurethanes, gel-Coat, acrylics, epoxies, powder coatings, all marine metals, nylon, polycarbonate, perspex, vinyl.
- **Resistance:** High durability, strong permanent bond to surfaces. Coating is resistant to weathering, UV, freeze-thaw, high heat, corrosion and oxidation and protects underlying surface from these environments.
- **Heat:** Cured coating is neither flammable nor combustible and will provide a degree of heat resistance to the underlying substrate.
- **Removal:** Crystilium Clear Coat can be removed using our Clear Coat dissolver.

Coverage

1 litre of Crystilium Clear Coat is enough to cover 75 m², this may be reduced to below 60 m²/L on more absorbent matt and weathered surfaces.

1 Litre of Crystilium Clearcoat Dissolver is enough to cover 25m². 2 applications may be necessary to complete removal.

Technical Data

Crystilium Clear Coat

Appearance	Transparent mobile liquid
Specific gravity	0.93
Boiling point	195 °C (solvent)
Melting point	N/A
Volatile volume	58%
Evaporation rate	Slower than ether
Vapour density	Heavier than air
Solubility in water	Incompatible, hydrolyses
Volatile Organic Compounds (theoretical - as packaged)	500 g/l Emitted VOC (EU)

Crystilium Clear Coat Dissolver

Appearance	Green gel
Specific gravity	1.04
Boiling point	110°C (solvent mixture)
Melting point	<-30°C (solvent mixture)
Volatile volume	56%
Evaporation rate	Slower than ether
Vapour density	Same as air
Solubility in water	Completely soluble upon dilution
Volatile Organic Compounds (theoretical - as packaged)	582g/l Emitted VOC (EU)

Miscellaneous Product Information

Crystilium Clear Coat

Store frost free in sealed original container at temperatures below 25 °C. Shelf life of up to 12 months in unopened container if stored as directed.

Do not allow water or other protic substances into the container, this will lead to premature crosslinking of the product and may generate a pressure build-up of ammonia.

Can be applied to steel, galvanised steel, stainless steel, copper, brass, bronze, aluminium, nylon, polycarbonate, Perspex, vinyl and surfaces previously painted with acrylics, epoxies, polyurethanes and powder coatings.

Not suitable for use on untreated, unsealed porous surfaces such as cinder blocks, brick, concrete, fibreboard or cement.

Crystilium Clear Coat Dissolver

Store frost free in sealed original container at temperatures below 25 °C. Shelf life of up to 12 months in unopened container if stored as directed. Product can be poured into a plastic container or pot for use. Do not transfer to or store in glass containers as this will etch away the inside surface of the container and deactivate the product.

Method Statement – Crystilium

Application Tool Preparation

Surface Preparation¹

It is essential that proper surface treatment be undertaken prior to application.

1. Using 3M Tizact 3000 disc attached to an orbital sander, remove surface contamination, imperfections and light scratches. Ensure disc/surface is kept slightly wet.
2. Using a fast cutting compound on a compounding pad attached to an orbital sander, remove fine abrasive scratches.
3. Wash with Greencorp Marine Boat Wash.
4. Rinse with fresh water.
5. Dry with a cloth soaked in acetone or isopropanol to remove any last traces of water.

Application of the Crystilium Clear Coat

1. Apply within the temperature range of 10°C to 30°C, do not apply in strong wind, direct sunlight or where humidity exceeds 80% or where the substrate temperature does not exceed the dewpoint by at least 3°C.
Failure to adhere to these precautions will result in a coating that is lower in gloss and non-homogenous in aspect.
2. If applying to painted surfaces, ensure underlying paint is fully cured before overcoating.
3. Mask off or otherwise protect adjacent surfaces that are not to be coated.
4. Apply the Crystilium using a thin nap foam roller. Soak the foam with the coating so that it is moist but not dripping wet.
5. One section at a time apply a coat that wets the surface in a striping motion with even strokes, taking care to overlap and not leave a dry edge.
6. Then tip off that section within 2 minutes. Using a microfiber cloth fastened with adhesive tape or a clip to a brush, spatula or wiper blade wetted with Crystilium. [Crystilium application video](#). Ensure microfiber towels are washed and then dried (without detergent) in order to remove any dust or loose pieces of cloth.
7. The coating will flow out to a perfectly flat finish.
8. Protect from dust, windblown detritus and moisture/rain for at least two hours.
9. The coating is touch dry within an hour and while hard dry in 3 hours at 25 °C, the coating will only attain its maximum state of cure after another 7 days. Do not immerse coated surfaces within 24 hours of application.
10. Apply as supplied, do not thin.
11. Do not pour used product back into original container.

At 20°C coating is dust dry in 2 hours at, resistant to solvent at 48 hours; full resistance is obtained when the coating has fully cured, at 20°C this requires one week. In a marine environment, we recommend a time to immersion of at least 24 hours on surfaces where the coating will regularly be in contact with water; e.g. areas just above the waterline.

Highly caustic/alkaline cleaners with a pH >12 will begin to damage the Crystilium if left on cured film.

Application of the Crystilium Clear Coat Dissolver

1. SAFETY: Wear safety glasses or goggles and nitrile gloves while using product and do not allow the gel to come into contact with skin. In case of skin contact wash off immediately with copious quantities of fresh water.
2. Ensure the area previously coated with Crystilium is clean, free of any oily residue, and dry.
3. Using a brush or roller, paint a 1-2mm thick layer of Crystilium dissolver onto surface.
4. Leave for at least 2 hours and cover with plastic at temperatures greater than 25°C. Do not leave for more than 18 hours.
5. Excess material may be wiped off with a cloth at this point.
6. Wash with fresh water, ensuring once more that product is not splashed onto skin.
7. If any areas of the original coating remain, these will be seen as the water will bead-up on them. These can be re-treated as per above.

Clean up Procedure:

Crystilium Clear Coat:
Clean tools/equipment used with Crystilium clearcoat with Xylene or acetone.
Crystilium Clear Coat Dissolver:
Clean tools/equipment used with Crystilium clearcoat Dissolver with water

Thoroughly review product label and Safety Data Sheet (SDS) for safety and cautions prior to using these products. Follow manufacturer’s safety recommendations when using any solvent.

Disclaimer

While every precaution is taken to ensure that all information furnished in this method statement is as accurate, complete, and useful as possible, Greencorp Marine cannot assume responsibility nor incur any obligation resulting from the use of any materials, coatings, or methods specified herein.

This method statement does not attempt to address problems concerning safety associated with its use. The user of this method statement, as well as the user of all products or practices described herein, is responsible for instituting appropriate health and safety practices and for ensuring compliance with all governmental regulations.

¹ Derived from SSPC-SP 1, Surface Preparation Standards and Specifications - Solvent cleaning standard.