



# FinishShield



MARINE  
Sustainable Performance

## Description:

A single component, moisture curing, high gloss aliphatic urethane finish. Designed for low temperature or high humidity application. Providing UV- and chemical resistant equal to high-end 2-part polyurethane coatings.

- Excellent resistant to yellowing, chalking or degradation by sunlight
- Can be applied in below freezing temperatures (no ice or frost at the surface)
- Can be applied at 99% relative humidity
- No dew point restrictions (surface must be visible dry)
- Outstanding abrasion and chemical resistance
- Easy to apply, fast curing

## Recommended Uses:

For use over properly prepared surfaces in Industrial, chemical and/or marine environments:

- Heavy duty interior and exterior structural coating
- Cargo Holds, Ship decks
- Coating for steel, aluminium, concrete
- Water and Water Treatment Facilities
- Tank Exteriors
- Marine and Port facilities
- Offshore platforms

## Specifications:

Finish:	Gloss finish (70-95/60°, colour depending)
Theoretical Spread:	11,7m <sup>2</sup> @60 µm
Specific gravity:	1,15 – 1,4 ± 0,05 g/cm <sup>2</sup>
Colour:	Wide range of colours
Solids (Wt.):	70% ± 2% (vary by colour)
Solids (vol.):	64% ± 2% (vary by colour)
VOC:	379 gr/litre
Shelf life:	9 months, unopened Store indoors at 5°C to 40°C
Spreading rate:	60 µm DFT, max. 90 µm DFT



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## Qualifications:

FinishShield has passed the test requirements as mentioned in NEN-EN-ISO 12944-6 (2018) C5M.

Adhesion value (ISO 4624): > 10 Mpa (pull-off)  
Shore D hardness (DIN 53 505): > 58  
Cupping test (ISO 1520): 4,736 mm until break  
Bending test (ISO 6860): < 3 mm  
Taber Abrasion CS17 1000/1kg < 28 mg

## Drying Schedule @100 microns wet film thickness:

at 50% RH	10 °C		25 °C		40 °C	
	Without Speedcure	With Speedcure	Without Speedcure	With Speedcure	Without Speedcure	With Speedcure
To touch	6 hours	3 Hours	3 Hours	1,5 Hours	45 Mins	-
Recoat after:						
Minimum	12 hours	6 hours	8 hours	4 hours	3 hours	-
Maximum	No restriction	No restriction	No restriction	No restriction	No restriction	-
Cured	10 days	7 days	7 days	5 days	5 days	

## Preparation of steelwork

### Good Practices:

The surface to be coated must be dry, clean, dull and free from dirt, grease, oil, rust, mill scale, salts or any other surface contaminants that interfere with adhesion.

Ensure welds, repair areas, joints, and surface defects exposed by surface preparation are properly cleaned and treated prior to coating application.

Areas of oxidation after surface preparation and prior to coating application, should be prepared to specified standard.

Consult the latest revision, SSPC-PA1 and your H2O Marine Representative for additional information or recommendations.

H2O Marine B.V.

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## Preparation of steelwork

### Surface contaminants

Residues of oil, grease, marking inks, cutting oils etc. after fabrication operations will seriously affect the adhesion of applied coatings and must be removed. It is erroneous to think that subsequent cleaning operations will remove such contaminations and it is bad practice to permit them to remain on the surface. Failure to remove these contaminants before blast cleaning results in them being distributed over the steel surface and contaminating the abrasive.

Suitable organic solvents, emulsion degreasing agents or equivalents should be applied to remove contaminants in preparation for subsequent treatments. Further guidance can be obtained from SSPC SP-1

### Aluminium/Galvanized/Non-Ferrous Metals

Remove all oil and grease from the surface by Solvent cleaning as per SSPC SP-1 and SSPC-SP12/Nace No. 5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement weathered galvanized surface preparation with SSPC-SP2 and 3 Hand and Power Tool cleaning to remove excessive corrosion and impart surface profile on bare metal. Supplement new galvanized surface cleaning with SSPC-SP16 to impart surface profile and support mechanical adhesion.

### Concrete/Concrete Block

The surface must be dry, free of surface contamination, and in sound condition. Grease, and oil should be removed according to ASTM D4258-83 (1999) and release agents should be removed according to ASTM D4259-88 (1999). Refer to SSPC-SP13/NACE No.6 mechanical or chemical surface preparation methods for preparing concrete to suitable cleanliness for intended service. Surface preparation methods should impart sufficient surface profile for mechanical adhesion to occur. Ensure surface is thoroughly rinsed and dry prior to coating application. Allow a minimum 7 to 14 days cure time for new concrete prior to preparation and application.

### Previously painted surfaces

In order to prepare a strategy for maintenance painting, it is important to undertake a survey to determine whether part or full repainting is required, where coatings are found to be firmly adherent to the substrate with no indication of breakdown, they can be considered as a suitable base for the maintenance coats.

The surface condition of the existing paint should be thoroughly washed to remove contaminants, and it may then be necessary to abrade the surface lightly especially of hard and shiny coatings, to enable good adhesion.

Where the breakdown is localised, and the majority of the protective coating is intact and soundly adherent to the substrate, then the small areas of breakdown can be prepared back to the substrate for localised repainting. Ideally, the affected areas should be prepared to a standard as mentioned above, e.g. localised blast cleaning or by manual and mechanical methods where blasting is impractical. Feather the edges to insure proper adhesion of the repainted surface.

In maintenance painting operations after surface cleaning of the substrate, even by dry blast cleaning to Sa 2½ standard, there may be contamination with salts produced by the corrosion process. Old steel structures that are pitted by corrosion are more likely to have salts of ferrous sulphate and iron chlorides retained within the pitted areas and their presence needs to be determined prior to painting. The maximum allowable contamination is 40 mg/m².



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## Application Equipment:

The following is a guide. Changes in pressure and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Use a new set of spray hoses and keep them reserved for 2-k Epoxy coatings, if the equipment is not well cleaned and if there is a foreign reducer or cleaning thinner in the system the coating can react to a chewing gum or simply not dry out.

### Reducer/Clean up

Spray : H2O Solvent  
Brush and Roll: H2O Solvent

### Airless Spray

Pump: 30:1 ratio  
Pressure: 125 – 140 bar (1840 – 1960 psi)  
Hose: ¼" ID  
Tip: 0.13" – 0.15"  
Filter: 60 mesh (250 µm)  
Reduction: as needed up to 10% by volume

### Brush

Material: Natural bristle  
Reduction: as needed up to 10% by volume

### Roller

Material: ¼" natural or synthetic with solvent resistant core  
Reduction: as needed up to 10% by volume

## Application Conditions:

### Temperature

Air and Surface: -7°C (19.4°F) minimum, 45°C (113°F) maximum  
Material: 7°C (44.6°F) minimum  
Do not apply over surface ice or water.  
Relative humidity: 6% Minimum, 99% maximum

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## Application Procedures:

Surface preparation must be completed as indicated.

Mix material thoroughly prior to use with (preferably) low speed agitator. Filter slowly through a 50 mesh (300µm) screen.

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas. When using a spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, over thinning, climatic conditions, and excessive film build. Excessive reduction of material can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with reducer H2O Solvent. Pour a small amount of H2O Solvent over the top of the paint in the can to prevent skinning or gelling. Place a temporary cover over the pail to keep excessive moisture, condensation, fog, or rain from contaminating the coating.

Dry film applications more than 1,5 times the recommended minimum should be avoided, at high humidity and temperature, cure is rapid, but the carbon dioxide released by the reaction of isocyanate with water can be trapped as bubbles, especially in thick films.

H2O-Speedcure is the accelerator for use, see technical data sheet for details.

Do not use accelerated FinishShield longer than 3 hours!

It is recommended that partially used cans not be sealed/closed for use at a later date, if you want to store these partially used cans for later put a small float of H2O Solvent on top of the paint before sealing/closing the cans.

Clean the tools immediately after use with H2O Solvent.

Drying times and curing times should be considered as a guide only.

## Safety Precautions:

### Danger!

Intended for professional use only. Obtain and Read Unica's Safety Data Sheet for this before using. **Container could be under pressure, take care opening the lid.**

**Adequate Ventilation:** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Keep away from heat, sparks and flame. Vapor may cause flash fire.

## Keep out of reach of children

**First aid:** If affected by inhalation of vapor or spray mist, remove to fresh air. If breathing difficulty persists or occurs later, consult a physician and have label information available. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, do not induce vomiting. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.

Keep container closed when not in use. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

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## Ordering Information:

Packaging: 5 and 20 Liter kits  
Product code: 07xxx-xx  
Weight : 1,28 ± 0,05 Kg/L. (average)

## Warranty:

H2O Marine B.V. warrants her products to be free of manufacturing defects in accord with applicable H2O Marine quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by H2O Marine B.V. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY H2O Marine B.V., EXPRESSED OR IMPLIED STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## Disclaimer:

The information and recommendations set forth in this Technical Data Sheet are based upon tests conducted by or on behalf on the H2O Marine Company, such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication.

Consult your H2O Marine representative to obtain the most recent Technical Data Information.

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