

## APPLICATION GUIDELINE, VALHALL GELS SERIES

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### PURPOSE

This guideline is created to ensure that Valhall Gels is used correct in addition to ensure that all work is performed with safety and quality in mind.

Valhall Gels is nontoxic, 100% biologic degradable and will not harm the environment.

### DEFINITIONS

“The Product”: Valhall Gels Series: Odin Gel, Odin GreenGel, Valhall CleanGel, Valhall GreenGel & Valhall Ultra Gel.

“MSDS”: Material Safety Data Sheet

## SCOPE

To ensure work is performed correct and safe it is essential that implied persons understands and are familiar with the use of the product. Incorrect use of the product can lead to poor quality and damage to persons. It is therefore essential that the operator of the product understands how to use it and uses it correct.

## RESPONSIBILITY:

Executing operator is responsible to have read and understood MSDS, Technical datasheet and this application guideline before work starts.

## PROTECTION:

Full covering water repellent suit, Safety googles, helmet with visor. If HP water pump is to be used to wash of product, hearing protection and full-face covering visor/mask should be used. If used in confided space, tanks and other enclosed areas, mask with fresh air supply is to be used. See MSDS for details.

## EQUIPMENT FOR APPLYING

HP Paint pump from 32-1 and more.  
Spray gun with nozzle from 23/60 to 32/60.  
Brush can be used for smaller areas.

**IMPORTANT:** Hoses and pump must be free for paint and thinner before running the product trough pump and hoses. Teflon gaskets are recommended.

## APPLYING THE PRODUCT

### APPLYING THE PRODUCT

Before applying the product, all heavy corrosion and loose paint should be removed with 300-500 bar HP water or other suitable tools. Oil/ grease and similar is to be removed by suitable detergent before applying the product. Area not to be treated is to be covered. The product is then applied with HP paint pump and spray gun at a thickness of minimum 400 Microns WFT when corrosion on carbon steel is to be removed. Brush can be used on smaller areas, important to apply minimum 400 microns.

**IMPORTANT:** Product shall NOT be diluted; it MUST be used as is with no added water/solvent or similar

- Galvanized surfaces can be damaged by the product and should be covered.
- Use of products on GRP (I.e type Fibaclad FRM1) will lead to discoloring of surface.
- Pure Epoxy and some stainless steel & aluminum can experience discoloring, especially if the product is exposed to the surface too long.

**Therefore, always perform a test.** (please see «Test area» below)

## TEST AREA

It is strongly recommended to always perform a test in a suitable area to determinate the optimal gel thickness and exposure time on the surface.

Normally, an exposure time of 12 / 24 hours will be suitable when removing corrosion on carbon steel.

When cleaning of aluminum, stainless steel and painted surfaces, the exposure time can be from 15-30 min. up to several hours

The exposure time is strongly dependent on what surface it is, level of corrosion, level of pollution, air temperature, steel temperature, rain, sun etc.

For best result it is recommended to cover area to reduce the effect of wind, heavy rain and strong sun.

## EQUIPMENT FOR REMOVAL OF PRODUCT:

For best result a HP hot water washer, 300 to 500 bar with rotating nozzle is recommended. For smaller areas, hot water and brush/cloth can be used. Important that all remains of the product is removed before any paint is applied.

Ensure that product is not washed off before the high-pressure water beam hits the surface. Close distance between nozzle and surface is important since the product is a deep working product that needs high pressure to ensure that all remains of product are completely removed.

## THE PRODUCT'S WAY OF WORKING

All operators working with the product needs to know and understand the products cycle to get the best result of the product and the work. The product “eats up” corrosion and contaminations. i.e. a chemical process starts that dissolves corrosion, salts, algae etc. Depending of the level of corrosion it is essential to understand it's the products duration

on the surface that determinates the effect. If too short duration on the surface, the result can be poor, and the work has to be redone. This can also be the case if duration is too long. The product can then “dry out” and a new layer of the product must be applied to remove the old layer. To long exposure can also lead to discoloration of some pure epoxy topcoats as mentioned above. Always perform a test before start.

The weather also effects the products duration on the surface. Exposure to direct sun, low humidity and very high temperatures will lead to a faster “dry out” and will need more frequent control. If needed, more thickness can be considered. A sun protection should be considered if exposed to direct sunlight in a hot climate.

If surface is exposed for heavy rain, weather protection of the area must be done.

If product is used in normal climate (8 – 30 Celsius) the product can be exposed on

If exposed for below 8 Celsius the exposure time will be affected, and the product may need longer exposure time on surface to have the desired effect.

## USE OF THE PRODUCT ON DIFFERENT SURFACES:

### **Light surface corrosion, Carbon steel:**

- Surface is to be clean and free for oil & grease before applying the product.
- Apply product, Exposure time – up to 24 hours
- Wash off with HP hot water

The product does not remove oil & grease and if used on such surface, the product will have no effect.

### **More severe corrosion:**

- Surface is to be clean and free for oil & grease before applying the product.
- Area to be washed with HP hot water 500bar to remove loose paint and heavy corrosion.
- Apply product, Exposure time – 24 hours
- Wash off with HP hot water, 500 bar.

If corrosion is severe and deep, more treatment with the product should be considered (or other methods). This is to be considered during the work process or preferably before commencing work.

### **Cleaning of salts, algae, shell, weed, barnacles, calcium, humus, and magnetite:**

Pre-treatment with HP hot water is to be considered before each task. One treatment with 24 hours exposure will normally be enough for a good effect. A shorter exposure

can be considered in each case based on the performed test area. Likewise, a longer exposure time or several treatments can be considered in difficult cases.

### **Stainless steel & aluminium:**

The product is well suited for cleaning / preservation of stainless steel.

Light corrosion, salts etc:

- Surface is to be clean and free for oil & grease before applying the product.
- Apply product, Exposure time 15-30 min up to 12 hours
- Wash off with HP hot water.
- Avoid too long exposure as it can whiten the surface, always perform a test first.

### **Galvanized and zinc metalized surfaces:**

It is not recommended to use the product on such surfaces. The use of the product on such surfaces may decrease the effect on the original surface protection. Use of the product on GRP (e.g. Fibaclad FRM1) will cause discoloration of the surface

### **THE PRODUCT WILL NOT HARM:**

Most Metals, Oil products, paint, varnishes, plastic products, rubber, gaskets etc.

### **CONTACT**

For additional information or questions, please contact Valhall NGP

Phone: 56 12 61 00 / [post@valhallngp.no](mailto:post@valhallngp.no)

Please feel free to visit [www.valhallngp.no](http://www.valhallngp.no) for additional info.