# KAMI RECOMMENDATIONS FOR INSPECTION AND MAINTENANCE

## PLEGEL, PLUSPLEGEL, TERRAPLEGEL, BASIC and TP/VP

NOTE! Work on roof always brings risks. Always consider and respect safety regulations when you are on a roof.

Kami PLEGEL ROOF is the over all name for KAMI metal roof products. The products are available with different surface coatings adapted to the exterior environment and to fulfill technical and aesthetic demands. Common for all three surface coatings is that continuous maintenance is needed to secure performance and a long life expectancy. The frequency and range of maintenance differs between the three types of coatings.

## TWO MEASURES OF LIFE TIME

A metal roof can remain intact and has a life expectancy of >30-40 years or more with ongoing maintenance. Examples of metal roofs exist that are more than 150 years old and still in an acceptable condition thanks to maintenance. The aesthetic life expectancy should be considered separately from the technical life expectancy for painted metal roofs.

Aesthetical life expectancy is how long it takes for the coloured coating to change to the degree that it doesn't fulfill the aesthetic demands. The change in colour that is acceptable depends on who is judging, the type of building and where the building is situated. In some cases the limit of the aesthetical life expectancy is when the paint start to flake off.

Technical life expectancy is the time until the corrosion outweighs the thickness of the coating. This is more important to consider when the sheets are used in marine and highly polluted environments. The sun will affect the painted system as follows: the ultra violet rays will age the paint and cause the paint to be heated. Therefore, the life expectancy also depends on the colour, since darker colours absorbs heat more than light colours and therefore normally also have a slightly shorter life time. Thus roofs facing south and with low pitches are normally also more affected than surfaces facing north.

## **CORE MATERIAL**

All our metal roofs are manufactured from hot dipped galvanized steel, Z275.

#### **SURFACE COATING**

TERRA is a paint system in several layers and with quartz sand between the two upper layers of paint. The sand and the last two paint layers are applied after forming. The paint is polyester based and the total coating thickness is approximately 95  $\mu m$ . Due to the production method the coating thickness may differ over the surface. PLUS COATING is a paint system in several layers where the top coat is applied after forming. The paint is polyester based and the total coating thickness is approximately 75  $\mu m$ . Due to the production method the coating thickness may differ over the surface.

PUREX™ is matt coating with a nominal thickness of 26 µm. The coating has good scratch resistance and a long aesthetical life

POLYESTER is a glossy coating for our products KAMI Basic and KAMI TP/VP. For maximum colour performance, corrosion resistance and scratch resistance we recommend TERRA- or PLUS coating. Both of these coating systems means that the products are coated both before and after forming. All our coatings are adapted to profiled products and for exterior use.

## YEARLY INSPECTION

During the yearly inspection the following should be checked:

- Check the condition of the surface. If the coating is becoming matt, if the colour is changing, or if there are any cracks, cleaning, touch up painting or repainting should be considered. The biggest risk areas are normally where the surface is protected from above and the rain can't clean it. Check cut edges extra carefully.
- Waste in rain water gutters, eave gutters and wells increase the risk of water leakage into buildings. Clear and clean them from rubbish that binds water and other corrosive elements.
- Dirt and rubbish on the steel sheet surface increase the risk of damage since the surface is kept wet continuously. Remove the dirt/rubbish from the surface, clean it and allow to dry.

- Damaged surface coatings increase the risk of corrosion. Depending on the extent of damage, the damaged area should be touch-up painted, repainted or exchanged.
- Loose fixings, waste from rivets, metal chips or other metal objects that lay directly on the sheet surface should be removed.
- Defective or wrongly installed fixings can cause leakage. Exchange defective fixings and, if the threads are damaged, use a bigger dimensioned fixing.
- Cut edges at side- and end laps are especially exposed areas where corrosion can appear if not treated in time. Damaged areas must be freed from attack and then painted.
- Keep an inspection protocol. Make thorough notes about the sheet status and any actions that should be taken. Keep note of actions taken.

## CLEANING

Rain is normally enough to keep the sheets clean. Any residue from dirt that rain can't wash away can be removed with a soft brush and water. Take extra care to clean areas that are sheltered from rain. Use of high-pressure washing is not recommended except on surfaces that are to be repainted. High-pressure washing increases the amount of pores that thus promote dirt sticking to the surface. In areas of highly pollution it may be necessary to add detergent to clean the sheet surface. For example you can use ordinary washing-up detergent. We recommend "plåttvätt", a specially developed detergent for areas that are to be repainted. Use according to the manufacturers instructions and rinse thoroughly afterwards.



## Inspection and maintenance continued...

## SOME CLEANING ADVICE

- Always start from the top and work your way down the roof.
- Work carefully. Too much cleaning can do more harm than good.
- Only use detergents that are designed for the purpose intended.

## TREATMENT OF DAMAGE CAUSED BY CORROSION

- Scrape, grind or sand blast all organic material from the affected area.
- Remove all rust by sand blasting or grinding the damaged area. Then clean the area with alkaline degreasing agent, for example 5% caustic soda with additional washing-up detergent. As a final step, rinse the surface thoroughly with water and let it dry.
- Base coat: Use a paint with high zinc concentration.
- Top coat: Paint according to following description.

#### REPAINTING

Colour changes, corrosion or the fact that you just want a new color on the roof are examples of reasons to repaint your roof. Ask for further instructions from your local merchant

#### **TOUCH UP PAINTING**

Touch up painting is applied to smaller areas such as scratches etc. Note that the colour of the touch up paint can differ slightly from the original colour.

#### **PAINTING**

Steel sheet areas that shall be touch up painted or repainted shall be dry and clean from dirt and fat. New sheets may have some extra wax on the surface that needs removing before painting. To reduce the risk of colour differences, mix the paint thoroughly. Don't paint in direct sunlight or when the temperature drops below +5°C. The relative humidity shall not exceed 80%.

Check that old paint adheres thoroughly to the steel! This should be done according to the instructions from the paint supplier.

Remove loose paint with a scraper, steel brush or high-pressure washing. Surfaces with rust shall be thoroughly steel brushed or sand blasted. Clean with alkaline degreasing agent. Rinse with clean water and let dry.

Choose paint/colour system depending on surface and type of damage:

- If the zinc layer is perished, the steel sheet should be primed with a primer containing a high concentration of zinc.
- •If the colour is gone but the zinc layer is intact, the steel sheet shall be primed.
- •If the old paint is intact it can be repainted after normal cleaning.

Use paintbrush, roller or paint-sprayer when painting. Choose a small, soft paintbrush for touch up painting of smaller surfaces.



Should you have any questions or require further information, please contact us using the details below:

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