voestalpine Sadef – warranty Solar (version December 2022)

Customer: .....
Ref. Project... - PO.... dd.....
O/Ref: SO

#### 1 General

- Voestalpine Sadef warrants that the products are designed according to Eurocode and the corresponding national application document. Voestalpine Sadef grants a warranty of # years from the date of the last delivery (= #) by voestalpine Sadef, subject to the terms and conditions set out below.
- 2 This warranty is provided for the project with the following details:
  - a. Name: #
  - b. Location: #
  - c. For environmental class: #
  - d. Based on the geologist's soil analysis report with reference #
- The warranty lapses if the customer does not pay for the products on time.
- 4 The warranty does not apply if damage to the product or any other damage is the result of:
  - Incorrect technical data and/or studies provided by the customer, incorrect environmental factors and incorrect specific data that are decisive for determining the type, quality and finish of the product to be supplied by voestalpine Sadef;
  - The incorrect or negligent performance of the customer's inspection and maintenance obligation with regard to the section parts and/or their fastening structure;
  - Normal wear and tear;
  - Negligence, misuse, in particular deviations from use according to manuals or design specifications, incorrect installation, overloading of the structures or other components of the installation by the customer or a third party;
  - All damage caused during or after the installation of the construction;
  - Damage caused by fire, lightning, flooding, explosion, earthquake, acts of war, riot, radiation, falling objects, vandalism, ground settling, movement or failure of foundations or other extraneous causes.

### **2** Terms and conditions

- 1 The warranty is subject to the following terms and conditions:
  - a. The products are handled and installed by a qualified installer in accordance with the voestalpine Sadef installation plan (structural drawing).
  - b. Voestalpine Sadef does not accept any liability for any loss or damage resulting from incorrect information by the customer concerning the environmental parameters, the installation location and the resulting choice of a solar park system. Responsibility for this information rests solely with the customer.



- c. The warranty is not valid if the products are installed in an environment that does not correspond to the data provided by the customer. The warranty is also not valid if the products are installed in an environment subject to corrosive chemical deposits of any kind or if the products are exposed to smoke or rainwater containing carbon, deposits of particles of heavy metals such as iron or copper, alkaline products such as ash, cement dust or animal excrement. This warranty is not valid for areas subject to high wear and tear (desert areas with high wind and sand wear, abrasion).
- d. The warranty does not apply to mountings where another metal is in direct contact with the galvanised sections or any material that may cause corrosive run-off on the zinc sheet. On the other hand, we can only advise you to respect the guidelines included in the inspection and maintenance plan.
- e. The design of the foundations with the determination of the ram depth and its suitable surface treatment is based on the geotechnical report with reference # drawn up on the date of #, as communicated by the customer.
- 2 The visual appearance of the cut edges and surface discolouration are not covered by this warranty.
- The rights and claims under this warranty are assigned to the customer on a personal basis and are not transferable. By way of exception, the warranty is transferable to the legal successors of the customer if they become the owner of the products, provided that voestalpine Sadef is informed in writing of the details of the new owner at the start of the transfer of ownership and also provided that the previous owner expressly confirms to voestalpine Sadef in writing that he waives his own warranty rights.
  - In this case, voestalpine Sadef cannot be held liable for warranty coverage not included in the original warranty. Any other transfer of rights and claims under this warranty is subject to the prior approval of voestalpine Sadef.
- 4 If any provision of the warranty is unenforceable or invalid, the remaining provisions will remain in effect.

# 3 Inspection and maintenance plan

- 1 The aforementioned warranty only applies if the customer correctly carries out the inspections stated below and if he maintains the products in accordance with the maintenance instructions stated below. Failure to comply with all requirements punctually will invalidate the warranty.
- 2 In order for the customer to be able to invoke the warranty granted to him, he must provide proof by means of the necessary traceable inspection reports with a fixed date that the inspections and maintenance below have been carried out correctly.
- All costs for carrying out the necessary inspections and the necessary maintenance and repairs of normal damage, as included below, are fully borne by the customer.

### 3.1 Inspection

# 3.1.1 Annual survey



- The products must be inspected annually by the customer. This annual check takes the form of a visual check of the entire installation.
- 2 In the following cases, the customer must immediately inform voestalpine Sadef by sending the detailed inspection report:
  - Upon determining the first appearance of rust (excluding cutting edges and surface discolouration due to run-off from cutting edges or adjacent parts).
  - Upon detecting abnormal deformations or settling.
- The following must be checked at each annual inspection:
  - Are all bolts and nuts tight? Has the minimum required tightening torque as indicated in the voestalpine Sadef installation plan been applied? If not, the customer must repair.
  - Check for soil erosion.
    - If this could lead to reduced stability of the piles (e.g. lower anchorage depth due to local soil erosion) or excessive deformation (e.g. due to soil settlement) than initially specified/estimated, a suitable geologist, possibly in collaboration with a civil engineer, must define the necessary actions and maintenance instructions to warrant the initially required stability of the structures.
  - Annual inspection especially for areas where there is a risk of accelerated zinc depletion due to rain and condensation run-off.
  - Annual inspection especially in severely corrosive environments (class C4 or higher) for the areas where mountings in other material are in direct contact with the galvanised sections (see clause 2.1.d)
  - In the case of using the Fastslide system, check that the panel is supported by the R62 click stop element on both sides of PV panels. If this is not the case, voestalpine Sadef should be informed so that the necessary maintenance/repair instructions can be drawn up.
- 4 If the inspection shows that maintenance work or repairs are required, the customer must carry out these at its expense and responsibility. The mere fact that voestalpine Sadef gives the customer instructions in this regard cannot result in the establishment of any admission of liability by voestalpine Sadef. Failure to carry out maintenance work and/or repairs on time or not in accordance with the instructions given will result in full cancellation of the warranty.

# 3.1.2 Inspection every 5 years

- 1 This inspection must be performed by the customer at the time of product installation and every 5 years thereafter by an independent accredited inspection agency.
- The inspection should take the form of a measurement of the zinc coating thickness on a number of representative reference sections, selected by the customer under its responsibility. Repeated zinc layer thickness measurements (every 5 years) should be carried out at exactly the same place (points) of the sections. These points should be marked on the section in such a way that they are still visible at the following measurement 5 years later. The results of each inspection must be recorded and reported in a traceable inspection report.
  - If measured layer thickness < 15  $\mu$ m and the difference with the previous measurement is greater than 5  $\mu$ m, the customer must inform voestalpine Sadef.
  - If measured layer thickness < 10 µm, the customer must inform voestalpine Sadef.</li>



 A first measurement campaign, which will be used as an initial reference, should be carried out just after finalising the plot.

The standard layer thickness is apparent from the relevant ISO standards.

#### 3.2 Maintenance

#### 3.2.1 General

1 The instructions given below for cleaning the structure and repairing the damaged surface treatment are based on the current state of the art. If in the future these instructions should change in the light of further developments in technology, voestalpine Sadef will incorporate these in the latest version of the warranty document, which can be consulted on the website: https://www.voestalpine.com/sadef/en/Infocenter. The customer undertakes to check the website before any cleaning and repair and to apply the instructions according to the latest state of the art.

### 3.2.2 Cleaning the structure

- 1 Dirt, leaves and other debris that may affect the surface treatment of the sections or that may impede the free drainage of water must be removed annually.
- 2 Cleaning procedure: Rinse off contamination, impurities and white rust on the construction. Cleaning should be done with water with a pH between 6 and 10, and without chemicals. If a high-pressure cleaner is used, the maximum pressure must not exceed 80 Bar and the distance between spray gun and galvanised material must be at least 50 cm.

# 3.2.3 Repair of damaged surface treatment

- 1 Damage to the surface treatment during ramming, installation or afterwards, such as scratches, dents, blisters, etc. must be repaired with a zinc rich paint, after removing any corrosion.
- 2 Any surface treatment, additional coating or painting other than the case mentioned in point 1 above, applied without prior approval, will result in loss of the warranty.
- If repaired damage, new damage or red rust is found after cleaning and during the inspection, they must be repaired as follows:
  - Removal of any loose zinc flakes or coating particles.
  - Removal of dirt and corrosion by scrubbing, filing and/or brushing, then degreasing with acetone. A hard nylon or stainless steel brush is used for brushing and scrubbing. Also clean and degrease with acetone the adjacent zinc layer that is still intact over a width of ± 10 mm.
  - The surface must be dedusted with compressed air or a brush
  - The cleaned part must then be degreased
  - Reparation with zinc-rich paint (at least 90% solids).
  - The thickness of the repaired places will be at least 100 mµ.
  - Repairs should be made in dry weather on a dry construction.
- 4 Repairs should be made as soon as possible after preparation and before the development of visible oxides.



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