Mounting structures
Overall warranty terms and conditions

28/11/2024

Liablility

RBT SOLAR Limited Liability Company, with its registered office in Zgierz, registered in the National Court Register kept by the District Court for Łódź-Śródmieście in Łódź, XX Economic Department, under KRS number 0001049095, NIP: 7322213923, REGON: 526065311, being the Manufacturer of mounting systems for photovoltaic installations, hereinafter also referred to as the Products, providing warranty for the products manufactured by it, made of hot-dip galvanized steel sheet, Magnelis® sheet and stainless/acid resistant sheet and aluminum sheet.

Warranty scope

1. The warranty applies to mounting systems installed within the territory of Poland.
2. The warranty includes protection of the mounting systems against perforating corrosion and the preservation of the physical properties of the material from which the mounting system was made. The warranty will be considered only if the covering of the sheet from which the mounting system was made has not been damaged, provided that the product was transported and stored in accordance with RBT SOLAR's recommendations.
3. The warranty will be considered only when the components of the mounting system have been connected according to the guidelines of their assembly using recommended tools, the use of which does not result in damage to the coating of the structural elements.
4. The warranty covers mounting systems located in places with normal atmospheric corrosivity categories (C1-C3 according to EN ISO 12944-2: 2017), excluding heavily polluted areas and areas located less than 2.0 km from the sea and/or exposed to freshwater or saltwater spray (corrosive action categories C5 and CX according to EN ISO 12944-2: 2017).
5. The warranty covers mounting systems affected by moderate environmental conditions of corrosivity, excluding those structures exposed to the corrosive action of all kinds of chemicals, especially those containing smoke or rainwater containing coal, sediments, or particles of heavy metals such as iron, copper, or alkaline products such as ash, cement dust, or animal products, including waste.
6 The warranty does not apply to locations where mounting systems are exposed to adverse effects, including, but not limited to, sand abrasion, dust, or other particles, e.g., desert regions with strong winds.
7. The warranty covers only Products that have been installed by a person holding a valid installer certificate in the field of renewable energy sources issued by the Technical Inspection Authority on the date of completion of the installation or by persons trained and certified by the Manufacturer

Introduction

Below are detailed requirements regarding mounting systems made of hot-dip galvanized, stainless steel, and aluminum sheets intended for the installation of photovoltaic modules, where corrosion resistance and appearance are of paramount importance. Considering the properties of the products, which may vary within larger or smaller limits, depending on the choice and combination of required applications, it is difficult to precisely determine the minimum requirements for all properties for all types of products.

Guidelines for product storage

It is recommended that products be stored in covered areas so that they are protected from moisture and stored in dry conditions where the temperature is higher than 0o C. Products should be stored in conditions that provide protection from atmospheric and environmental influences, away from corrosive substances, chemicals, products containing copper and lead, dust, ashes and sources of high temperature.
Tinplate, stainless steel and aluminum products intended for prolonged storage should not be stored outdoors. They should be unpacked and covered with a layer of preservative oil, and when storing them, spacers should be used to prevent individual pieces from contacting each other. In the event of moisture, soggy items should be absolutely dried and proceed as above.
Changes in temperature and humidity in unheated rooms can cause condensation on the surface of products. In the case of galvanized products, this results in the appearance of “white rust”, i.e. a white-gray deposit, consisting mainly of zinc hydroxide, oxide and hydroxycarbonate, formed when the galvanized surface, before it forms a protective layer of zinc patina, is exposed to moisture, such as rain, dew, snow, frost or steam condensation. In order to prevent the formation of white rust, contact with moisture should be avoided during product storage and products should be covered with plastic film. In any case, ensure proper air circulation. Fragments of white rust can be removed with a nylon brush. Do not use wire brushes, which can damage the surface of the zinc coating,
For packages with products that are stacked on top of each other, it is recommended that the height of the stack be limited to prevent possible pressure and deformation of the elements, and be marked accordingly. It is recommended that the minimum distance of the package from the ground is 25 cm. It is permissible to store a maximum of 2 packages one on top of the other, at an angle, so as to facilitate the drainage of water, if there is a risk that such water may occur. In addition, it is recommended that the products are not placed or stored on the bare ground, but are placed on wooden beams or protective mats laid on the surface where storage takes place. It is recommended to avoid any hard unevenness that could cause point pressures or indentations, as they could cause external irreparable damage under certain circumstances.

Elements of the set of mounting screws before their installation should be stored/stored in a place and in a manner that ensures their proper protection from the negative effects of both atmospheric factors and sources of their possible contamination (dust, oils, acids, water, etc.). The method of storage of screw elements in any case should guarantee the integrity of their substance and protection of the surface.
RBT SOLAR informs that flat washers may undergo “sticking” during the hot-dip galvanizing process. If such phenomenon occurs, RBT SOLAR undertakes to replace such “glued” flat washers with new ones.

Maintenance

In order to maintain the terms of the warranty, it is recommended to inspect the products at least twice a year to check the condition of the coating of the mounting systems and whether it has been damaged. It is recommended to use brushes and abrasive cloths to clean the products attached to the object. Regular cleaning makes it possible to keep interior surfaces in satisfactory condition. Cleaning is recommended to be carried out whenever streaks from layers of atmospheric pollution washed off the surface of products show up.
Screw set components made of stainless, austenitic steel, e.g. A2-70, under dry friction conditions may fail manifested by problems with screwing or unscrewing.
If this situation occurs, it is recommended to use a lubricant such as Anacote Plus Vlh.
If a lubricant is used, contact RBT SOLAR to verify the bolt torque originally specified.

Quality control and testing

The manufacturer is responsible for performing, prior to shipment, all inspections and tests required by the detailed specifications. Technical acceptance of the product is carried out by viewing the products and all its components from a minimum distance of 3 meters. The product should not have defects that prevent its proper use. The surface, color and texture should have a uniform appearance while small scratches, nicks or dents on the surface of the products are allowed, but not exceeding 2% of the total surface of one piece of the product.
Roughness, slight roughness of the surface, which may occur on the products is the result of the use of certain hot-dip galvanizing technology and is not subject to complaint.
Slight differences in the shades of the coating between products from different production batches and elements of products made by different production technologies are permissible.
For hot-dip galvanized products, the occurrence of dark and light gray areas on the surface, slight unevenness of the outer surface, as well as white rust, as long as the zinc coating still has the required minimum thickness, does not constitute grounds for complaint.

Corrosion protection

Typically, the corrosion protection provided by the appropriate hot-dip galvanizing system has a shorter duration than the expected service life of structural elements. Therefore, at the planning and design stage, the possibility of maintenance and repair of system elements should be considered. It should be noted that in each case, the cost-effectiveness of using a particular protective system is usually directly proportional to the length of the period during which effective protection is maintained. By employing better, and consequently more expensive, protection systems, the scope of repair or renovation work during the service life of structural elements is minimized. It should be noted that the durability of products is not the warranty period. Durability is a technical category that helps the investor determine the renovation plan. The warranty period is a legal category that is subject to contractual clauses. The warranty period is usually shorter than the durability period.

Requirements considering the intended use will have a significant impact on the choice of the ordered product, and for ease of selection, the following popular corrosion resistance categories have been identified:

- → Category RC2 – for rural atmospheres, i.e., with a low corrosion category C2.
- → Category RC3 – for urban and industrial atmospheres, i.e., with a low concentration of SO2, and for maritime atmospheres with low salinity, with a moderate corrosion category C3.
- → Category RC4 – for industrial atmospheres with moderate SO2 concentration and maritime atmospheres with moderate salinity, i.e., with a high corrosion category C4.
- → Category RC5 – for industrial atmospheres with high SO2 concentration and maritime atmospheres with high salinity, i.e., with a very high corrosion category C5.

It should be noted that no requirements are specified for the corrosion resistance category RC1 due to its minimal harmfulness. It is also important to note that corrosion resistance may be higher in sheltered areas and also depends on the exposure time in a humid environment. Below are recommendations to consider when choosing coated material, taking into account the atmospheric corrosion categories from C2 to C5. Furthermore, based on the guidelines mentioned, it is guaranteed that standard structural elements made of hot-dip galvanized steel, stainless steel, or aluminum, used in environments with atmospheric corrosion categories from C1 to C3, will not exhibit perforation damage for a period of 10 years.

Table 1. Recommendations for selecting the appropriate category based on PN-EN ISO 12944-2

Corrosion resistance category	Atmospheric corrosivity category	Rural atmosphere	Urban atmosphere	Industrial atmosphere	Marine atmosphere
RC2	C2 (Low)	■			
RC3	C3 (Medium)		■		
RC4	C4 (High)			■	■
RC5	C5 (Very high)			■	■

Hereby, for mounting systems made of hot-dip galvanized sheet metal and Magnelis® sheet metal, the effectiveness of anti-corrosion protection is guaranteed within a 10-year period of use, and for mounting systems made of stainless steel or aluminum sheet metal, the effectiveness of anti-corrosion protection is guaranteed within a 20-year period of use, counting from the date of sale, for the operation of mounting systems made of the aforementioned materials in an external atmosphere with corrosion categories C1, C2, C3 according to the guidelines of standard PN-EN 10169. The aforementioned period of anti-corrosion protection can be extended by issuing Detailed Warranty Conditions, which complement the General Warranty Conditions and are issued based on the buyer's declaration of environmental siting, with the reservation that such extended Detailed Warranty Protection applies only within the scope of the buyer's declared method and location of siting.

Conditions for maintaining rights arising from the warranty, warranty claims, and extension of the warranty period:

1. The warranty is valid from the date of sale.
2. Warranty claims will be considered only upon submission of an official written complaint along with the sales document (invoice) for the products within a non-extendable period of two weeks from the discovery of the defect.
3. Complaints should be submitted at the point of purchase of the goods from the Manufacturer or its Authorized Representative/Distributor, whose address is available on the website www.rbtsolar.com.
4. Warranty claims will be considered if defects affect at least 5% of the surface area of a single element, with the exception of claims not considered for uniform color changes, fading of the coating due to dust, and uniform changes in gloss.
5. Warranty claims will be considered if the product was used in normal environmental conditions with a corrosion class outside the building from C1 to C3 according to PN-EN 10169. Warranty claims will not be considered for damages caused by extraordinary weather conditions or natural phenomena such as earthquakes, fires, hailstorms, floods, hurricanes, etc., as well as damages caused by aggressive environmental conditions (industrial or commercial pollutants, corrosion-causing vapors or gases, wood preservatives, cement dust, ammonia, chlorine, nitrates, etc.), and damages caused during war, riots, and terrorist actions.
6. Warranty claims will not be considered for products that have been in contact with other corroded objects or made of copper, or in contact with solutions containing copper salts.
7. Warranty claims will not be considered for color differences in products purchased at different times but made from sheets from different production batches or differences resulting from production processes, including differences that do not exceed parameters as mentioned in the "Quality Control and Testing" section.
8. Warranty claims will not be considered for products whose edges were cut and not adequately protected with a protective coating.
9. Warranty claims will not be considered for damages caused by the use of devices causing the edges of sheets to heat, e.g., angle grinders.
10. Warranty claims will not be considered for damages caused by improper storage of products. Warranty claims will not be considered for damages caused by improper and non-professional installation of structural elements, including installation in unsuitable locations, even when despite the recommendation from RBT SOLAR or its Authorized Distributor/Representative, the Customer waived conducting trials such as "palpation" and pulling tests of anchoring elements of the structure to the ground.
11. To maintain rights arising from the warranty, the Buyer is obliged to carry out annual inspections of the Products by a person holding a certificate issued by RBT SOLAR confirming training in the installation of such structures.
12. Warranty claims will not be considered in the case of damage caused by improper and unprofessional installation of construction elements, as well as their installation in places unsuitable for this purpose, including when, despite the recommendation of RBT SOLAR or its Authorized Distributor/Representative, the Customer refrained from carrying out tests of so-called piling and pulling out elements anchoring the construction of the System to the ground.
13. Warranty claims will not be considered for defects resulting from the assembly of structural elements from other manufacturers.
14. Warranty claims will not be considered for products not maintained according to the recommendations described in the "Maintenance" section.
15. To review the warranty granted, the Buyer is obliged to ensure free access to the claimed product for persons representing the Manufacturer. At the same time, until the complaint is resolved, the Buyer is obliged to secure the claimed product against any further damage and losses.
16. In the event of physical defects of any components included in the Products during the warranty period, they will be replaced with defect-free components with the most similar technical parameters. The exchange will take place at the guarantor's headquarters.
17. The Manufacturer is not liable for indirect costs or other costs arising from coating damage, including costs of disassembly and reassembly.
18. The warranty does not cover Products that have been used contrary to their intended purpose or have been moved, disassembled, and reassembled, or partially disassembled by persons without a certificate of installer for renewable energy sources issued by the Technical Inspection Authority or persons not trained and certified by the Manufacturer.
19. The Manufacturer's liability is limited solely to the value of the invoice issued at the time of sale of the warranted products. In no case does this warranty cover any other costs beyond the value of the issued invoice.
20. At the Buyer's request, the Manufacturer may extend the warranty period by issuing Detailed Warranty Conditions (DWC), which should provide the exact address of the investment and the type of mounting system used.
21. After the expiration of the warranty period, any claims will not be considered.

Warranty on Tracker products

These warranty terms and conditions are applicable to Tracker products with the following specified modifications below:

1. For Tacker products, the warranty period is:
   a. 2 years for moving parts of the structure and automation and control components,
   b. 10 years for the steel structure and anti-corrosion coatings.
2. For Tracker-type products, service inspections for verification of connections, structural condition, lubrication, and condition of moving, drive, automation and control components should be carried out at least twice a year at intervals of no more than 6 months.

Questions? Doubts? Reach out to us.

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