





## STAL, LUXOCYNK, PVC gutter systems Care & Maintenance

Roof gutters are exposed to diverse air pollutants and interaction between elements that may cause damage and shorten the durability of the system.

The main sources of threat to steel gutters are the following: sulfur compounds, chlorine compounds, nitrogen compounds, mineral salts, dirt and soot. Together with water and UV radiation, these pollutants affect the durability of the varnish coat.

 In terms of durability of the coated steel sheet, the most critical is damage that occurs during the installation, followed by reactions that take place in these spots with pollutants that come into touch with the layer of zinc under the paint coating, or particularly with the steel core

 Another source of damage are reactions between galvanized elements of various electrochemical potentials in the acidic environment that create a voltaic cell, resulting in corrosion.

The effect of pollution in the air is the most conspicuous near industrial and coastal areas. Sulfur- or chlorine-rich emissions are exceptionally difficult because pollutants strain coatings and shorten their lifespan. For this reason, it is important that gutters are cleaned and maintained on a regular basis.

## 1. Inspection and maintenance of coated steel systems:

- 1.1 Post-installation inspection: After installing gutters, it is necessary to remove all loose items, such as loose ferrules, sheet pieces, drillings and other metal items from the interior of gutters. Any damage to surfaces of the steel gutters must be secured with touch-up paint.
- 1.2 Periodic inspection: Gutters must be regularly inspected from the inside, at least twice a year. If any defects to the coating of steel gutters are found, they must be repaired immediately. In this way, the lifespan of the gutter can be prolonged. The inspection must entail the following actions: removal of all obstacles and dirt through rinsing. If necessary, the entire system must be washed. Pollutants and soil as well as rain water drain blockages give rise to an environment that supports the emergence of corrosion.
- 1.3 Equipment condition: The condition of gutter fastenings and connections must be checked at least twice a year. Damaged or partially loose connections cause leaks and the risk of corrosion of the steel gutter. Any damaged fastenings must be replaced.
- 1.4 The varnish coat inside the steel gutter: clean and check the internal surface as well as the edges of the gutter. Stripped coatings, uneven fading, the emergence of blisters and cracking as well as local scratching signal a need for repair.
- 1.5 Inspection of the exterior varnish coating of the steel gutter: Visual inspection of the exterior surface must be conducted once a year as a general check. A more detailed inspection is required every five years during the guarantee period. Coated surfaces must be viewed

- from a distance of 1.5 meters. After the guarantee period expires, the exterior surface must be checked every two years.
- 1.6 Washing and removing dirt: Rain water is usually sufficient to keep the surface clean. Such pollutants as tree leaves must be removed from gutters at least twice a year. When removing dirt, remember not to use sharp tools that may damage the surface of the gutter and gutter fittings. The coating must be cleaned with a soft brush and water, or water under high pressure (<100 bars). Stubborn and hard-to-remove stains may be removed with a cloth moistened with white spirit. Please remember that use of unsuitable or aggressive cleaning agents may lead to damage to the varnish coat.</p>

It is necessary to fix all damage to the steel gutter varnish coat as soon as possible. Remember to use paints dedicated to particular surfaces. It is not advisable to use spray paints. Before painting is initiated, clean the damaged area with painter's naphtha or a cleaning agent. Traces of corrosion must be removed with a cloth or small abrasive paper, and the surface must be degreased. Apply 1 or 2 layers of paint to the damaged area, depending on the paint manufacturer's recommendations. For the purposes of painting, choose a brush that is as small as possible. If damage penetrates the ground coat only, one coat of paint is sufficient. If damage reaches the zinc, it is advisable to paint the area twice. It is suggested that the cut edges should be secured at the installation stage. A touch-up varnish can be used for this purpose. In case of any damage to the borders of the gutter, follow the general rules of maintenance.

## 2. Inspection and maintenance of LUXOCYNK sheet steel systems:

- 2.1 Post-installation inspection: After installing the gutter, remove all loose items, such as loose ferrules, pieces of sheet, drillings and other metal items from the interior of the gutter. Any damage to steel gutter surfaces must be secured with touch-up paint.
- 2.2 Periodic inspection: Gutters must be regularly inspected from the inside, at least twice a year. If any defects to the coating of steel gutters are found, they must be repaired immediately. In this way, the lifespan of the gutter can be prolonged. The inspection must entail the following actions: removal of all obstacles and dirt through rinsing and, if necessary, washing of the entire gutter. Pollutants and soil as well as rain water drain blockages give rise to an environment that supports the emergence of corrosion.
- 2.3 Equipment condition: The condition of gutter fastenings and connections must be checked at least twice a year. Damaged or partially loose connections cause leaks and the risk of corrosion of the steel gutter. Any damaged fastenings must be replaced.
- 2.4 The varnish coat inside the steel gutter: clean and check the internal surface as well as the edges of the gutter.
- 2.5 Inspection of the exterior varnish coating of the steel gutter: Visual inspection of the exterior surface must be conducted once a year as a general check. A more

- detailed inspection is required every five years during the guarantee period. Coated surfaces must be viewed from a distance of 1.5 meters. After the guarantee period expires, the exterior surface must be checked every two years.
- 2.7 Washing and removing dirt: Rain water is usually sufficient to keep the surface clean. Such pollutants as tree leaves must be removed from gutters at least twice a year. When removing pollution, remember not to use sharp tools that may damage the surface of the gutter and gutter fittings. The coating must be cleaned with a soft brush and water, or water under high pressure (<100 bars). Please remember that use of unsuitable or aggressive cleaning agents may lead to damage to the varnish coat.

In view of the nature of the galvanized elements coating, it is advisable to paint the interior side of the gutter after a yearly seasoning with the use of a paint dedicated to galvanized surfaces. The manufacturer does not recommend installing LUXOCYNK sheet systems together with materials that may support the emergence of corrosion, particularly with bituminous or copper materials. If it is impossible to prevent the LUXOCYNK sheet from coming into contact with materials that affect its durability, it must be covered in acrylic resinbased protective coats.

## 3. Inspection and maintenance of PVC gutter systems:

- 3.1 Post-installation inspection: After installing the gutter, it is necessary to remove all loose items from the inside of gutters as they may reduce the flow-through capacity of the gutter.
- 3.2 Periodic inspection: Gutters must be regularly inspected from the inside, at least twice a year. The inspection must entail the following actions: removal of all obstacles and dirt through rinsing and, if necessary, washing of the entire gutter. Pollutants and soil as well as rain water drain blockages give rise to an environment that supports the emergence of corrosion.
- 3.3 Equipment condition: The condition of gutter fastenings and connections must be checked at least twice a year.

- Damaged or partially loose connections cause leaks and the risk of corrosion of the steel gutter. Any damaged fastenings must be replaced.
- 3.4 Washing and removing dirt: Rain water is usually sufficient to keep the surface clean. Such pollutants as tree leaves must be removed from gutters at least twice a year. When removing pollution, remember not to use sharp tools that may damage the surface of the gutter and gutter fittings. The coating must be cleaned with a soft brush and water, or water under high pressure (<100 bars).