

RUST EFFECT

In this document you will find Information about stainless steel used in our products and defects which may occur on the product surface. You can also find recommendations for product maintenance and ways how to eliminate the defects.

MATERIAL AND ITS CHARACTERISTICS

Most of the car accessories we manufacture, are made of high quality stainless steel. Material which we use is high-alloy chromium-nickel type DIN 1.403 (AISI 304), where chrome and nickel do not cover the surface, but are homogeneously throughout entire alloy. The easiest way of checking the compliance of the material is with a magnet – magnetization does not take place with genuine stainless steel (chrome-nickel). If the product has been welded, then the used filling material is equal or higher quality.

SURFACE FINISHING

Mechanical polishing

In order to achieve high-gloss, product is first burnished with fine sandpaper, then continued with cotton buffing discs and finished with polishing compound. Finished surface of the details (polished surface, painted surface) will fade over time due to exposure of airborne particles (sand, dust). Faded surfaces can be easily restored to the original high-gloss. (Information at the end of the document)

The electrolytic polishing

Some of our products are electrolytically polished. During this process all micro-asperities and oxidized particles are removed in an acid bath with high current density. With ongoing process an extra layer will be formed on the surface of the product, which increases the stainless steel corrosion resistance even more. Achieved gloss of electropolishing can be somewhat lower from mechanical polishing. However the differences between two are very minimal and can be detected only with highly detailed observation and using special lighting.

SURFACE FINISH DEFECTS CAUSED BY ENVIRONMENT

Stainless steel used in our products can not rust in terms of its characteristics. Therefore, there is no risk that product could become unusable over time. Due to the environmental issues around us, once in a while you might get the impression as the product is rusting – defects with different characteristics. Most common causes that can indicate rust effect below.

Exposure to aggressive chemical compounds around us

Sea water, acid rain or salt used for road maintenance could stuck on the surface of the product, between welds micro-cracks and joints. Such chemical attack may result a dull spots on the product. With an even higher content of chemical compounds, there could be even a brown iron oxide from the oxidation process.

Rusting particles sticking into the surface of the product, so called „flying rust“

Stainless steel is a „sticky“ and relatively soft steel variety. It is possible for rusting particles occurring in the air or road dust (eg iron, silica) to „stick“ in the micro-cracks or not so smooth parts of the product. As a result tan/rust colored bullets and patches can be seen on the product surface.

Exposure with other corrosive materials

A random stone hit on the highway, a touch of the tool in the workshop, sparks arising while cutting the metal (and not even mentioning a crash) – they all cause rusting particles sticking onto the surface of the product. They all cause brown spots and patches.

As mentioned rust effects are directly related to the product usage, therefore it is up to customer to regularly take care of the product and its quality, and manufacturer can not take responsibility for disposing them.

HOW TO MAINTAIN POLISHED SURFACES AND REMOVE DEFECTS?

Similarly to a car windshield or car body color, our products will become duller over time and lose their original gloss. Therefore we recommend occasionally to clean and polish the product(s) with ordinary polishing tools used for cars.

It is often the case when surface damage or „rust effect“ can be removed with a stronger wipe with a cloth or finger. However, we still recommend you to remove them with the use of same tools that are used for car body polish (with polishing compound + polishing wheel attached to an electric drill or an angle grinder).

After contact with seawater, salt or other aggressive chemicals - they need to be removed from a product with a pressure washer.

Products polished mechanically can be restored to its original „high gloss“, as it were at the time of purchase. This requires electric drill or an angle grinder and polishing compound, which can be bought from us or our dealers. It is also possible to send the product to be polished in our factory (with extra fee).

NB! Electrolytically polished products can also be mechanically and independently polished, but as the method is different the visual result may differ as well. In order to achieve the initial result, these products should be sent to Metec to be repolished.