

## INSTRUCTIONS FOR USE AND MAINTENANCE OF PROGRESS STAINLESS STEEL PRODUCTS (EN: 1.4301 / 1.4401)

The material of stainless mesh and grids in the EN: 1.4301 / 1.4401 grade has very good anti-corrosion properties. Mesh made of this material is characterised by high aesthetic properties and durability if the customer (user) complies with the conditions of product storage, installation, and use.

### Preventing stainless steel corrosion.

- Protect mesh/grids at each stage (transport, storage, installation) against contamination, mechanical damage, and contact with carbon steel. Use clean, specialised tools intended exclusively for stainless steel.
- Avoid the risk of galvanic corrosion—the contact between stainless steel and other metal materials (do not use the tools that were previously used for carbon steel).
- The products should be stored in dry and well-ventilated premises at a temperature that does not cause condensation on the surface of mesh/grids.
- Carry out a review after the installation—remove all damage and potential discolouration; for cleaning, use a stainless steel brush or the specialised Scotch-Brite™ cloth by 3M. Never use hydrochloric acid to remove cement mortar deposits; the mortar must be rinsed with clear cold water before it hardens.
- When cleaning, do not use chemical substances containing chlorides, strong abrasives (steel wool), use only measures dedicated to stainless steels.
- An important factor affecting corrosion resistance is smoothness and cleanliness of the surfaces. Even small surface irregularities may lead to corrosion. The first symptom of steel surface corrosion is usually dulling of steel surface. Subsequently, with no proper maintenance, brown discolourations and traces may appear.

### Cleaning and maintenance.

For interior applications (C1,C2), the cleaning should be carried out according to the schedule for cleaning of other interior elements. Do not allow contaminations to become visible. Comply with the guidelines for cleaning stainless steel.

For exterior applications (C3-C5), control the contamination level of the grids/mesh. Industrial and road pollution (particularly the deposit from de-iced roads, street contamination), marine environments, covered areas, etc. may cause brown spots, dulling. Cleaning should be carried out as soon as such symptoms become noticeable but not less frequently than the times listed in the table below.

Corrosion category PN-EN ISO 12944-2	Washing frequency for the 1.4301 grade	Washing frequency for the 1.4401 grade
C1-C2	3 – 6 months	6 - 12 months
C3-C4	Do not use 1.4301	6 - 12 months
C5	Do not use 1.4301	3 – 6 months

I-2

Corrosion classes according to PN-EN ISO 12944-2

Corrosion classes		Examples of environments typical for the temperate climate	
		Interior	Exterior
C1	very low	Heated buildings with clean air. E.g. offices, shops, schools, hotels.	Not applicable.
C2	low	Buildings not heated, where condensation may occur, e.g. warehouses and sports halls.	Atmosphere with low pollution, mainly in the country.
C3	middle	Buildings for production with high atmospheric humidity and some air pollution, e.g. food manufacturers, breweries, dairies, laundries	Urban and industrial areas, moderate sulphur dioxide (IV) pollution, e.g. coastal areas with low salt content.
C4	high	Chemical manufacturers, swimming baths, and ship- and boatyards by the sea	Industrial areas and coastal areas with moderate salt impact
C5	very high	Buildings or areas with almost permanent condensation and with high pollution.	Coast and offshore areas with high salt content.

To maintain the attractive appearance and protect against corrosion, it is recommended to wash regularly with warm water with soap or mild detergent. Rinse with clean cold water, wipe until dry! The appearance of the surface can be improved with professional cosmetics, e.g. by 3M/BRENNTAG/BIO-CYRCLE.

Washing should remove contamination and deposits that, if left on the surface of stainless steel for too long, may initiate surface corrosion and dulling.

**Removing difficult contaminations.**

<b>Contamination types</b>	<b>Manner of removal.</b>
Fingerprints,	You can achieve the best results by regularly using <b>3M Stainless Steel Cleaner &amp; Polish.</b>
More durable spots, oils, greases	We suggest using <b>3M Scotch-Weld Cleaner Spray</b> or <b>BIO-CYRCLE Kalk-Barrakuda</b>
Lime and cement deposits, rust moulds	Rusty oxides should be best rinsed with <b>BIO-CYRCLE Kalk-Barrakuda</b> and then with water (preferably demineralised) or <b>BIO-CYRCLE E-NOX Clean</b>
Rust traces from iron particles	Particularly good results can be achieved by using <b>Solar Rust BRENNTAG</b>
Paints	Wash off with a paint thinner, using a soft nylon brush
Mortars Other persistent stains	Do not allow to dry; do not scrape off the dried material with sharp tools. Do not use the commercially available preparations for removing mortar due to their aggressiveness. Use a solution containing nitric acid and then water (preferably demineralised)

After removing stains, wash the whole surface. In case of changes that are impossible to remove with standard methods (removing difficult contaminations), the grids should be etched and passivated (at a plant specialising in such services).

To maintain safety, comply with the recommendations of the agent manufacturer and the OHS regulations.

***Any deviation from the above will result in voiding of the warranty!***

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