

Process Specification

Antifingerprint

x-clean® AF 4089 K1 + K2

-Technical Application-

Purpose:

x-clean® AF 4089 is a 2 K solvent-based coating material for stainless steel surfaces (preferred Coil coating application). The product forms an almost invisible, thin film, which protects the metal surface against corrosion and against oxidative attack caused by finger prints and hence reduces their visual perceptibility. Fingerprints can be removed easily, without tarnishing of the treated surface.

The alcohol-based product is applied by a coil coating process and cured at temperatures between 240 and 260°C for seconds.

General data (mixture of K1+K2):

Active agent	inorganic-organic polymer, halogen-free, solvent-based. (flame point 23°C)
Appearance of the coating material	transparent
Viscosity (DIN 53211)	18-35 s (4 mm Ford cup):
Solid content	about 45%
Solubility	Ready to use for coil coating, dilutable with alcohols, preferred Dowanol® PNB
Handling	refer to safety data sheet
Stability	Component 1: 1 month Component 2: 3 month

The tightly closed original containers have to be stored at 5°C to 25 °C (protect from direct sunlight). Opened container should be processed quickly. The expiration date of each batch is shown on the product label. Storage beyond the specified period also does not necessarily mean that the product is unusable. A check-up of the necessary properties for the specific application is essential in this case for reasons of quality assurance.

General Processing:

For assurance of safety, we recommend that goggles and gloves must be worn and do not breath vapour or aerosol.

The following steps are necessary for the coating process: 1. Mixing of Components 2. Pre-treatment, 3. Application and 4. Drying step

Mixing of Components

Mixing ratio 100:14,5 (K1:K2)

Under fast stirring dosing x-clean® AF 4089 K2 slowly to x-clean® AF 4089 K1. Goggles and gloves possibly respiratory mask must be worn.

Pre-treatment

The surface of the substrates has to be cleaned from dust-, oil- and grease residues. We recommend a slightly alkaline, neutral or acidic cleaner (Alsar 25/7 or Alsa S-PEO, Alsa-Chemie, Germany). After cleaning the substrates should be rinsed in deionized water and dried. An indicator for a clean surface is a continuous laminar wetting with the clear rinse water. Alternatively organic solvents like butyl or pentyl acetate or methylethylketone can be used.

Application:

The coating material is applied by a coil coating process. The coating is applied on the substrate at room temperature. The product x-clean® AF 4089 forms a thin homogeneous wet film on the substrate surface.

The recommended application rate is 2 to 4 microns dry film thickness, depending on the structure (depth) of the metal surface. The dry film thickness (DFT) is 1.7 g / cm³.

Drying step:

The coating has to be dried at temperatures between 240 and 260°C for 30 to 60 seconds.

Concluding remarks:

Subject to technical modifications and amendments, the above-mentioned details reflect the criteria regarding our quality inspections. They do not constitute any legal assurance of particular product features or of the suitability for a specific application. All of the values are applicable at the time when the product leaves the supplier's factory. The values stated are reference points, they are subject to being continually updated within the scope of product maintenance. A written sales agreement shall be required for the information concerning product specifications to have a binding character. Please refer to our warning notices, our product information sheets and safety data sheet.

Should you require further information and technical advice, our Applications Engineering Department and the relevant R&D Department are at your disposal.

Our product information and (applications) engineering consultancy services, whether communicated orally, in writing or by means of tests, are in accordance with the current status of the knowledge and experience gained by us.

We reserve the right to modify and update our products within the scope of technical progress and further developments within the company. This information is provided without engagement. The sole purpose of such information is to provide details on the properties of our products and their potential applications. It does not constitute any guarantee and is not intended to be an assurance of any particular properties or suitability for a specific application. The client or user is thereby not exempt from carrying out his/her own testing to determine the suitability for the intended processes, purposes and applications by members of staff with the appropriate qualifications. This also applies with regard to the protection of proprietary rights of third parties. Brand or trade names of other companies are mentioned merely by way of example and do not constitute any endorsement, the use of other products of the same nature is not excluded.

*No concluding knowledge is yet available regarding trial products still in the testing stage. Their specifications have not yet been conclusively determined and may change at any time during the testing stage. Therefore, it is not possible to make conclusive statements with regard to characteristics including, but not limited to their processability as well as the parameters for production and applications engineering.

