

# Surface Preparation and Application of Glass Flake Coatings

Technical Support Procedure TP-9202-18



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## Introduction

Ronass' series of Glass Flake Epoxy Coatings are made up of two-components (Glass Flake Epoxy and Hardener) which go through a chemical reaction once mixed together. Once the chemical reaction completes, these coatings form a very durable film with excellent mechanical, anti-corrosive and chemical-resistant properties, offering a long service life in tough service conditions. In order to ensure that the coating is able to perform its expected capabilities, it is important to follow the surface preparation and coating application guidelines listed in this document. Please refer to the product's technical datasheet (TDS) for more information.

## Surface Preparation

Prior to application of the coating, the substrate (Steel or Metal) should be completely clean and free of all possible contaminations and grease. Prepare the surface according to Swedish STD. Sa. 3 with a maximum surface roughness profile of 100 µm (minimum).

Use compressed air or a vacuum cleaner to remove any contaminants that are left behind from blasting.

## Mixing Ratio and Instructions

Please refer to the specific product's technical datasheet (TDS) for specific mixing ratios and instructions.

Mix component A well before using according to the product's technical specifications, then add component B slowly and continue to mix with an electric or pneumatic mixer until you are left with a completely uniform mixture. Use the prepared mixture according to the Pot Life (the time allowed for coating consumption after mixing the components) specified in the technical specifications.

Please note that the packaging size of the product's A and B components are proportional to its mixing ratio. Therefore, use a Can to Can ratio for mixing the two-components. In the event that you wish to mix an amount that is smaller than the amount provided in the packaging, please ensure that you use an accurate and precise scale to measure the amount of components required according to the mixing ratio provided in the technical datasheet (TDS) of the product.

After mixing the components, wait for the initial reaction time (Pre-Reaction Time) for 5-10 minutes. Once the Pre-Reaction period has passed, you may thin down the mixture using 3 – 5% T-445 (Epoxy Thinner) by weight if required. Do not thin down each component separately.

*Due to the thickness of the coating, it is recommended to use the minimum amount of thinner possible during application, or forgo the use of thinner completely.*

## Application Conditions

Prior to applying the coating, observe weather conditions, the speed and direction of wind, ambient temperature, ambient humidity, as well as the dew point. Apply the coating using high pressure Airless Spray (Pump Ratio 1:70), using a spraying angle that matches the type of surface and geometric shape of the parts being painted. Use a recommended nozzle size (0.025 " – 0.031") to apply the coating.

## **Application of High Film Thicknesses**

To avoid blistering during curing and ensure the proper release of solvents from the coating, it is recommended to apply the coating in multiple layers, each with a film thickness of  $250 \mu\text{m}$  –  $250 \mu\text{m}$ .

It is imperative to observe the Recoating Interval (maximum interval between the application of layers) of the coating. This interval is typically 16 – 24 hours.

## **Conditions for Completing the Reaction (Curing)**

For thicknesses of  $1000 \mu\text{m}$  and more, to assist the drying process and complete the chemical reaction, it is recommended that once coating application of the last layer has been completed, painted parts be placed in ambient temperature for 24 hours, and then held at  $80^\circ\text{C}$  –  $90^\circ\text{C}$  for another 24 hours.

## **Important Considerations**

To fully protect the coating and ensure a complete and prolonged service life, it is important to prevent any mechanical damage to the coating or the parts being painted during coating application, as well as transportation, installation, and commissioning of the part.

## **Safety recommendations**

Ronass' Glass Flake products contain organic and flammable solvents, so following the following considerations and recommendations are necessary (RTB-1212 is a solvent-free, however please pay attention to these considerations and recommendations as well):

- ❖ Avoid coating application in close proximity to flames, electricity lines and electrical equipment.
- ❖ Avoid breathing gas and vapor during application time.
- ❖ Protect your skin, eyes and other vital parts from contact with coatings and thinners. Ensure that you are using personal protective equipment (hats, gloves, glasses, masks, etc.).
- ❖ In the event that coating application is occurring in a closed environment, proper ventilation is required.
- ❖ Avoid coating application in open air during rain and heavy wind.
- ❖ If you are left with excess coating (A and B Components mixed together) in the container, close and reseal the container to prevent drying and waste, as well as other possible risks and complications.
- ❖ Wash and clean the tools, equipment, spray guns and hoses after application with the solvents recommended in technical datasheets (TDS).

For more information, please refer to the technical specifications of the products you intend to use.