

EP80

0002

Epoxy paints

2K- Corrosion Resistant Epoxy Paint

Trade name / Product code	EP80 / 0002																			
Material base	Epoxy resin																			
Glossiness level	Semi-matte																			
Hardener	ET02 ET05, ET27																			
Thinner	S6300																			
Hardening ratio Paint : hardener	7 : 1 parts by weight 4.5 : 1 parts by volume The paint should not be thinned before processing!																			
Reaction time	10 minutes after processing.																			
Pot life, 20 °C	ET02 - max. 4 hours ET05, ET27 - max. 4 hours Processed mixture must NEVER be used after the lapse of the pot life (4 hours) and should not be mixed with a newly produced mix and vice versa!																			
Processing data	<p>Air spraying</p> <p>Thinner: S6300 Application viscosity: 20 to 50 s / 4 mm cup DIN / 20 °C Jet: 1.3 - 1.6 mm Pressure: 3 - 5 bar</p> <p>Airless / airmix spraying</p> <p>Thinner: S6300 Application viscosity: 40 to 90 s / 4 mm cup DIN / 20 °C Jet: 0.28 - 0.33 mm airless / E311, E411 airmix Pressure: 120 - 150 bar airless 80 - 120 bar / 1.8 - 2.2 bar airmix</p> <p>Roller, brush</p> <p>Thinner: S6300 Application viscosity: 20 to 80 s / 4 mm cup DIN / 20 °C</p>																			
Processing	<p>The minimum temperature of both the base and the hardener before processing should be 10 - 25 °C!</p> <p>Mix the paint thoroughly after opening the package. When using less than the whole package, weigh the pre-calculated quantity of paint (7 parts of base and 1 part of hardener by weight) or measure parts by volume using the appropriate rule (4.5 parts of base and 1 part of hardener by volume). After mixing both components thoroughly, thin the processed mixture to the viscosity value needed for the specific application with thinner S6300. It is recommended to apply the paint after 10 minutes of processing (reaction time).</p>																			
Drying times at 20 °C Wet thickness 50 µm	<table border="0"> <tr> <td></td> <td>ET02</td> <td>ET05, ET27</td> </tr> <tr> <td>Dustproof / 20 °C:</td> <td>60 minutes</td> <td>30 minutes</td> </tr> <tr> <td>Touch dry / non-sticking / 20 °C:</td> <td>180 minutes</td> <td>40 minutes</td> </tr> <tr> <td>Recoatable / 20 °C:</td> <td>4 hours</td> <td>90 minutes</td> </tr> <tr> <td>Workable / 20 °C:</td> <td>7 hours</td> <td>3 hours</td> </tr> <tr> <td>Final curing time / 20 °C:</td> <td>7 days</td> <td>7 days</td> </tr> </table>		ET02	ET05, ET27	Dustproof / 20 °C:	60 minutes	30 minutes	Touch dry / non-sticking / 20 °C:	180 minutes	40 minutes	Recoatable / 20 °C:	4 hours	90 minutes	Workable / 20 °C:	7 hours	3 hours	Final curing time / 20 °C:	7 days	7 days	
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2K- Corrosion Resistant Epoxy Paint**Technical data**

The rate of cure and achieving the final properties vary depending on the climatic conditions and coat film thickness.

Additional drying temperature: max. 60 °C

Colours: 0100, 0110, 0840, RAL as agreed

Supplier viscosity, 20 °C: thixotropic

Density, base, 20 °C: 1.60 to 1.70 g/cm³

Density, processed mix, 20 °C: 1.50 to 1.60 g/cm³

Dry matter content, base: approx. 81 % by weight

Dry matter content, processed mix: approx. 77 % by weight

approx. 66 % by volume

VOC content, base: approx. 190 g/kg

VOC content, processed mix: approx. 230 g/kg

approx. 360 g/l

Total organic carbon TOC content, processed mix: 190 g/kg

Theoretical spreading rate:

Dry film thickness 40 µm 9 to 11 m²/kg

Consumption depends on object shape, surface roughness, and application technique and conditions.

**Maximum thinning to 500 g
VOC in 1 l of processed and
thinned mix**

150 g S6300 per 1 kg of processed mix (both hardener ET02 and ET05, ET27).
To Regulation No. 415/2012 Coll.

Application data**Application conditions**

Air temperature: +5 to +30 °C

Base and hardener temperature: +10 to +25 °C

Object surface temperature: min. 3 °C above dew point

Relative humidity of air: max. 70 %

Number of coats: 1 - 2

Wet film thickness: min. 75 µm
recommended: 100 - 125 µm

Dry film thickness: min. 40 µm
recommended: 60 µm

The thickness of a coat applied in a single working step on a vertical surface depends on object shape, surface roughness, and application conditions.

Overcoatability: The paint can be overcoated with the same paint or a suitable top paint.

Second paint coat can be applied "wet on wet" after 40 - 80 minutes.

Top coat can be applied after 4 hours (hardener ET02) or 90 minutes (hardener ET05, ET27) of prime coat drying.

If exposed to the effects of polluted environment, the surface should be cleaned thoroughly before next coat application, at best by rinsing with high-pressure clean water, and let dry up.

The maximum period of overcoatability with a top coat is 30 - 50 days; after that, a new prime coat has to be applied in a dry film thickness of 30 - 40 µm.

Application

Prime coats of metal products including zinc-coated and aluminium ones (such as structures, metal transportation containers and mobile homes, machine guards, lighting poles, door frames, metal pallets, etc.). It provides excellent corrosion and chemical resistance and first-class adhesion to the substrate. It is

**EP80****0002****Epoxy paints****2K- Corrosion Resistant Epoxy Paint****Surface preparation
Steel**

suitable as a primer overcoatable with a wide range of polyurethane and synthetic top coats. The paint can be used to coat mineral grounds and some plastics (making an adhesion test being advisable).

Any grease, scale, old coats, corrosion products and dust have to be removed thoroughly from the metal surface at least to St 3 or by blasting to Sa 2½. Any welds and sharp edges must be ground off. This method of surface preparation allows achieving the optimum anticorrosive properties of the coats. Paint application should be started within 6 hours of blasting at the latest to avoid flash corrosion occurrence!

**Surface preparation
Zinc-coated steel**

Any mechanical dirt has to be removed from zinc-coated steel surfaces (areas) before coating and the surface degreased thoroughly by rinsing with water and suitable detergent. Using warm water is preferable.

ET02, ET27 hardener should only be used!!!

It is recommended to make a test of suitability for the particular application purposes.

**Surface preparation
Hot-dip galvanized steel**

Newly hot-dip galvanized surfaces (areas) should be cleaned thoroughly, washed, degreased with a suitable water-dilutable alkali detergent and corrosion products removed (white rust) before coating. Slight blasting with non-metal abrasive (sweeping) is recommended for heavily soiled surfaces where the zinc layer thickness is 80 µm or more. For details see the separate technical guide for zinc-coated substrate preparation.

ET02, ET27 hardener should only be used!!!

It is recommended to make a test of suitability for the particular application purposes.

Utility properties

The cured coat is resistant to abrasion.

Cross-cut test (steel): degree 0 to 1

Temperature resistance:

Long term: 90 °C

Short term (max. 60 minutes, dry): 120 °C

For more details please contact our technical department.

Cleaning and maintenance

The mixing and application tools should be cleaned as soon as possible with thinner C6000 or S6300.

Packages

1 kg to 200 kg metal packages as agreed.

Shelf life

Paint - 24 months; hardener - 6 months from the date of manufacture if kept in the original closed packages in a dry room, out of direct sunlight and at a temperature from +5 to +25 °C. The storage areas should meet all the conditions for storage of hazard class II combustibles.

Documentation

Technical Application Guide
Material Safety Data Sheet

Waste disposal

Coating composition N 08 01 11 Waste paints

Empty packages N 15 01 10 Packages containing residues of hazardous substances



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Disclaimer

The product data provided in this Technical Application Guide results from the current level of production, laboratory and application tests. The manufacturer reserves the right to make revisions according to the state of development. As the product is used frequently beyond our control, we cannot guarantee anything else than the quality of the product as such. We are not liable for any mistakes occurring due to wrong application, application past the shelf life or improper storage.

This document only provides non-binding information that has to be concretized by the end user for the specific product type. On no account this document supersedes the identification data of this product specified in the material safety data sheet.

Date of issue

19. 10. 2015

Revision date

18. 01. 2018

Before starting works with this product, ALWAYS read thoroughly the relevant material safety data sheet and the material safety data sheets of the applicable hardener! Observe the safe handling and occupational safety instructions.

For more detailed information please contact our technical department.