

ACS EPOXY STEEL PRIMER®

Two-Component Epoxy Resin-Based Primer



Description

ACS EPOXY STEEL PRIMER®, is a modified epoxy resin based, two-component, low viscosity, solvent - containing primer material for non-absorbent metal surfaces.

Place of usage

- As a primer material on metal/steel surfaces before poliurethan waterproofing.
- As a primer material on steel valleys before poliurethan waterproofing.
- On new steel mechanically cleaned surfaces that can not be cleaned completely and old solid painted surfaces, galva-

nized steel surfaces.

- On inner surface of storage tanks located outside.
- As a primer /intermediate layer, as a protective anti-corrosive coating of steel and concrete structures and equipments in contact with fresh water and sea water.

Advantages

- Excellent adhesion, elasticity, anti-corrosive characteristics and water resistance.
- Excellent adhesion to surfaces where surface cleaning possibilities are is limited.
- Long layer application time.

TECHNICAL CHARACTERISTICS

ACS EPOXY STEEL PRIMER® Component A	Epoxy Resin
ACS EPOXY STEEL PRIMER® Component B	Epoxy Hardener
Look	Semi-matt
Color	Grey, Beige, Oxide Red
Density	1,50 ± 0,05 kg/lit (A+B / 20 °C)
Mixing ratio	10:1 (A:B - by weight)
Volatile Solid Matter	%63 ± 1 (A+B)
Mix Life	2-4 hours (+20 °C)
Waiting between layers	Min. 3 hours / Max. 2 months (20°C)
Theoretical Spreading	8,40 m ² /kg (50 micron dry film thickness*)
Flash point	> 21 °C
Application Methods	Airless Spray, Roller
Thinner	Epoxy thinner
Recommended Application Thickness	60 – 100 micron dry film thickness *
Temperature resistance	Thermally resists humid temperature of + 80 °C (no chemical and mechanical impact at the same time) to + 120 °C dry temperature.

* dry film thickness

APPLICATION PROCEDURE / SURFACE PREPARATION

Surface information: all surfaces should be clean, dry and free from solid particles before priming.

New metal surfaces: First of all, paraffin, oil, grease and loose particles must be cleaned with the use of suitable solvent, detergent or steam, salt and other contaminants must be removed with water jet. After cleaning, it is recommended to buff the surface according to ISO 8501 standard at least Sa 2½

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level. Depending on the application conditions and ambient conditions mechanical cleaning according to ISO 8501 standard at St2 - St3 level can be done. Scraped surfaces should be primed within 5 hours depending on ambient conditions.

Old painted surfaces: Oil, dirt and grease should be cleaned with a suitable detergent; salt and other contaminants must be washed with high pressure water jet. On old painted sturdy surfaces apply slightly abrasive cleaning to ensure adhesion. Run-down and worn surfaces must be mechanically cleaned to St2 - St3 level according to ISO 8501 standard until to solid painted parts are seen; abrasive scraping should be done at minimum Sa 2, preferably Sa 2½ level if possible. As an alternative to abrasive scraping water jet can be applied to obtain surface with good adhesion. After water jet, solid paint layer with rough surface should be seen. Since excessive amounts of salt accumulate in thick rust layers, it is advised to first do dry abrasive scraping followed by high pressure water jet cleaning and then abrasive scraping at the desired level. Better surface preparation will improve the performance of **ACS EPOXY STEEL PRIMER[®]**.

Concrete surfaces: The surface must be cleaned with abrasive scraping until hard and rough uniform surface is obtained, if abrasive scraping is not possible prepare the surface with other mechanical methods or acid etching, then wash with a water jet. A suitable sealer must be applied to the surface. Make sure that the surface is clean and dry before application.

Retouching: Make sure that the surface to be retouched is clean, dry and free from all contamination. Retouching should be done in a short time after cleaning at St 2 level according to ISO 8501 standard.

MIXING

Preparation: **ACS EPOXY STEEL PRIMER[®]** is a two- component product: mix as much as can be used in one use according to the mixing amount information. In order to obtain a homogeneous mixture product temperature should be not less than 15 ° C. Mix A component with epoxy /polyurethane resin mixer with 300 - 400 rpm mechanical stirrer for 3 - 4 minutes until it is homogenous without letting air in. Then empty all of component B into component A and make sure that there is no product left in the ingredient B package. Components A and B should be mixed until homogeneous (at least 3 min). Add 8-10% A + B components amount of epoxy thinner to this mixture and mix for 3 minutes. Mix to the application viscosity, let the mixture rest for 10-15 minutes and consume in the mixture lifetime.

MIXING AMOUNT

ACS EPOXY STEEL PRIMER [®]	Component A	Component B
Mixture Amount	12,75 kg	1,0 kg
Mixture Density	1,50 kg/liter	

APPLICATION METHOD

Before applying ready-to-use mixture welding seams, sharp edges on metal surfaces should be smoothed out. Material

application: By roller, airless spray according to the amount stated on the paint system or in a desired way; control thickness with wet film thickness gauge. Avoid spraying dust and excessive film thickness.

APPLICATION AMOUNT

Application Equipment	Airless Spray	Roller
Thinning Ratio (by weight)	% 6 - 8	% 8 - 10
Pressure (bar)	180 - 240	-
Nozzle (inch)	0,021 - 0,023 inch	-

DRYING INFORMATION

(50 micron dry film thickness)	Touch-dry	Full cure
5°C	36 hours	96 hours
15°C	14-16 hours	72 hours
25°C	8-10 hours	36 hours
35°C	5-7 hours	24 hours

Reaches complete mechanical and chemical resistance in about 7 days.

MATERIAL CONSUMPTION

As a primer: **ACS EPOXY STEEL PRIMER[®]** 200-300 gr/m² (Depending on the metal surface)

TIPS TO NOTICE

- The relative humidity of air should be highest % 80, The application temperature (ambient and surface) should be between 5 °C and 35 °C.
- Keep out of rain during the application on open areas for the first 24-36 hours. During application under direct sunlight the surface temperature should not exceed 50 °C.
- In very windy weather the application should not be carried out outside as consumption will increase.
- Surface temperature should be 3°C above the dew point.
- The materials to be used at the appropriate temperatures should be brought and stored in the application area 1-2 days prior to the application and adjust the ambient conditions. In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product, the packages should be preconditioned to +15°C - +25°C to become ready to use. Epoxy and polyurethane based floor systems must be applied by specialists.
- The reaction and workability times of resin based systems depend on the ambient and substrate temperatures as well as the relative humidity. Under lower temperatures, the chemical reaction times are prolonged and this increases the pot life, coating interval and the working time. In addition to this, the consumption is increased as the viscosity increases. High temperatures ignite stronger chemical reactions and the above mentioned times decrease accordingly.
- After completion of the coating, the coating should not fall below + 8 °C at an air temperature of at least 36- 48 hours, and no direct water contact, snow on the newly applied

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product. Within this period, a contact with water may cause a surface carbonation and/or tackiness both of which will make the coating lose its characteristics; besides, whitening, spots, etc., may appear on the surface which is the reason of exudation. Surfaces are also prone to chalking and color changing when exposed to UV rays.

CLEANING OF TOOLS

Tools and equipment can be cleaned with cellulosic or polyurethane thinner after application. Once cured **ACS EPOXY STEEL PRIMER** can only be removed by mechanical means.

PACKAGING

Component A : 12,75 kg tin. Component B : 1,0 kg gallon

STORAGE

In unopened original package, it should be stored in a cool and dry environment at + 10 °C + 25 °C temperature protected from the freezing. In short-term storing, maximum 2 palettes can be

stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palettes must not be stowed on top of each other.

SHELF LIFE

The shelf life is 12 months from the date of production under suitable storage conditions.

SAFETY

During the application, work clothes, protective gloves, goggles and masks should be used in accordance with the Occupational Health and Safety Rules. Due to the irritating effects of uncured materials, the components should not be allowed to come into contact with the skin and the eye. In case of contact, immediately wash with plenty of water and soap. If swallowed, seek medical advice immediately. Food and beverages should not be left at the application areas. Keep out of reach of children. Comply with the Safety Data Sheet (SDS) which is prepared in accordance with EU directives especially for the product.



Responsibility

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ** is only responsible for the quality of the product. **ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones (06/2019)

