



## ***Rust stop + primer***

- 1. Product description:** Patented anti-corrosion and primer-system in one, the world's first rust stop and primer in one with epoxy resin. The ORIGINAL in a spray can. Developed for the industry, mechanics and ambitious DIY.
- BRUNOX® Epoxy in Brushing / Industrial Quality**  
Applicable with brush, roller, dipping or for industrial use to be sprayed with a spray gun or with airless devices.
- BRUNOX® Epoxy Spray**  
For spray application with the AEROSOL CAN.
- 2. Effect:** The rust is neutralized. BRUNOX® forms with iron and rust a metal-organic iron complex. The developing black, somewhat compact and durable protective layer provides a long-term corrosion protection and is, thanks to the enrichment with epoxy resin, simultaneously a primer.
- 3. Field of application:** Wherever rust accumulates in iron and steel - indoors and outdoors. Not suitable for underwater application.
- 4. Application temperature:** Ideal temperature: room temperature 20 °C,  
Do not use spray below 10 °C,  
Brushing / Industrial quality: do not use below 10 °C.
- 5. Application environment**  
Application outdoors:  
Wait for good, stable weather conditions. Ensure that during application and drying, no  
- dew  
- rain can set on the BRUNOX® Epoxy layer.  
  
Application indoors: Ensure good ventilation!
- 6. Preparing areas affected by rust:** Remove loose rust, grease, dirt and subsurface corroded colour (wire brush, sandpaper, grinding machine, dry ice, water or sand blasting).  
  
Derusting must be done according to DIN 55928 part 4, purity grade ST 2 or, if necessary, according to SA 2 1/2. Scale and rust may remain visible only as a slight tint due to shading of pores.



Furthermore, the **derusted steel must be free of dust and grease.**

Remove rust dust by blowing it off or with a rag damped with water or acetone.

**CAUTION Compressed air can contain oil, which can lead to problems with the adherence!**

**CAUTION Do not use any solvents, thinners or silicone by any means!**

## 7. Application:

### 7.1 Personal precautions

The usual precautionary measures are to be adhered to when handling chemicals.

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

#### **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer

exposure use self-contained respiratory protective device.

Short term filter device: Filter A/P2, Filter AX

**Protection of hands:** Material of gloves: Nitrile rubber, NBR, Butyl rubber, BR

**Eye protection:** Tightly sealed goggles

### 7.2 BRUNOX® Epoxy Brushing / Industrial quality:

Required material is filled into a working cup. Do not fill excess amount back into the original can, but keep it separately in a well-sealed box for further use.

#### **BRUNOX® Epoxy Brushing / Industrial Quality**

is applied by brush or roller evenly in not too thick layers, always in the same direction and overlapping.

**Industrial application:** Spray gun or airless possible. Processed as with aerosol can.

**BRUNOX® Epoxy Brushing / Industrial Quality** can be thinned with 8% acetone.

After about 2 hours (at room temp./20 °C), **BRUNOX® Epoxy** is dust-dry. Apply a 2<sup>nd</sup> layer **BRUNOX® Epoxy** on the dust-dry layer, however not later than after 6 hours. Let this second **BRUNOX® Epoxy layer** dry, \*until it is fingernail-hard, i.e. pressing down your fingernail into the layer leaves no impression.

### 7.3 BRUNOX® Epoxy Spray:

**BRUNOX® Epoxy Spray** is sprayed on from a distance of about 25cm in 3-4 instances, cross-wise. After the first spraying, let the **BRUNOX® Epoxy Spray** dry for about 30-40 minutes, and after the 2<sup>nd</sup> spraying, let it dry until both layers are dust-dry. Then the following layers are applied again with a time-lapse of about 30-40 minutes.

The last layer of **BRUNOX® Epoxy Spray** is dried until it has dried completely, i.e. until it is fingernail-hard\*.

## 8. Drying time:

The BRUNOX® Epoxy layer is violable while it dries. Therefore it must be ensured that it cannot take any mechanical damage and that no silicone, PTFE, or dust can settle on the BRUNOX® Epoxy layer.



When applied outdoors, the BRUNOX® Epoxy layer must be protected against dew and rain. Apply, if possible, at pleasant temperatures and stable weather conditions.

If temperatures should drop below 20 °C during the application, the air humidity will rise significantly and the drying time will be longer than 24 hours.

If BRUNOX® Epoxy is **applied too thick**, the **drying phase will also be much longer**.

**Speed up drying phase:**

After letting it flash off for at least two hours after the last BRUNOX® Epoxy layer has been applied, drying can be speeded up with a heat lamp or a dryer. It can also be cured for 10 minutes at 180 °C.

**9. Further processing:**

**No washing!**

**No sanding!**

**No cleaning the surface with silicone removers!**

**The application of a primer is omitted!**

After the protective layer has dried completely (fingernail-hard), a topcoat must be applied.

If necessary fillers (polyester, glass fibre or fine filler) can also be applied.

The compatibility with putties, fillers and topcoats must be checked:

**Nitro-containing or water based systems are not recommended:**

The use of nitro-containing topcoats is not recommended since they may attack or displace the BRUNOX® Epoxy layer.

Should water-based topcoats be applied in the outdoor area, further coatings must be applied.

**Recommendation:** Resin and iron oxide (strongly pigmented) colours offered for outdoor use.

**Dual-Component-Systems:**

Here it is advisable to previously test topcoats and fillers for compatibility.

Compatible with almost all commercial systems, which do not necessarily require their own line.

**In case of applications that require very strong adherence** (e.g. window glue, etc.) **or if you do not want to test compatibility** (e.g. in case of additional primer, 2-C-systems, etc.) the BRUNOX® Epoxy layer **has to be sanded down** after it has completely dried (fingernail-hard) **so far that only the neutralized rust remains**.

**10. Cleaning the working devices:**

The brush can be cleaned immediately after use with soap and water; later with a brush cleaner / universal thinner.

Industrial application: spray guns and airless pumps can be cleaned with acetone, which can be used again for further dilution.

- 11. Storage:** **Unlimited storage** at room temperature:  
**BRUNOX® Epoxy Brushing / Industrial Quality**  
Store it in well-sealed containers.
- BRUNOX® Epoxy Spray**  
Protect it from direct sunlight and temperatures above 50 °C.  
**CAUTION – SPRAY CAN BURST!** Flawless spraying for 3 years.
- 12. Environmental compatibility:** Free from heavy metals (lead, zinc, chromates)  
No aggressive mineral acids.
- 13. Container sizes:** **BRUNOX® Epoxy Brushing / Industrial Quality:**  
30 ml, 100 ml, 250 ml, 1000 ml, 5 l  
**BRUNOX® Epoxy Spray:** 150 ml and 400 ml
- 14. Technical data:**
- |                                     |   |
|-------------------------------------|---|
| Colour:                             | amber-coloured clear liquid   |
| Recommended drying layer thickness: | at least 40-50 µm<br>(brushing / industrial quality = 2 coatings;<br>spray can = 3-4 spray layers)                  |
| Consumption:                        | about 60g/m <sup>2</sup> per coating<br>15 m <sup>2</sup> /litres for one coating                                   |
| Dilution:                           | max. 8% acetone   |
| Heat resistance:                    | 180 °C for 10 minutes, permanent max. 80 °C   |
| Dust-dry:                           | after about 1 hour at 20 °C and dry air   |
| Cured:                              | after about 24 hours at 20 °C and dry air   |
| pH value (20 °C):                   | 4 - 4,5 (DIN 53785)   |
| Gloss level:                        | about 60%, depending on amount of rust  |
| Solids content:                     | <b>Brushing / Industrial Quality:</b> about 25%,<br><b>Spray:</b> about 16% (DIN 53216)                             |
| Density (20 °C):                    | 0.99 ± 0.02 g/cm <sup>3</sup> , Spray = 0.9 g/cm <sup>3</sup> (DIN 53785)   |
| Viscosity (25 °C):                  | <b>Brushing / Industrial Quality:</b> about 118 centistokes<br><b>Spray:</b> about 37 centistokes (DIN EN ISO 3219) |
- 15. Properties:**
- Very good penetrating / penetration capacity,
  - perfect film formation,
  - no brush marks,
  - no edge marks,
  - no washing,
  - no sanding,
  - good compatibility with most commercially available coating systems



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