

ROMPOX® 1102 EA-Coating 10⁶ Ω

**Solvent free, pigmented, electrostatic conductive,
2 component epoxy resin system with formulated amine hardener**

1.0 Areas of application:

ROMPOX® 1102 EA coating is an electrostatic conductive, coloured self-levelling coating based on 2 comp. epoxy resin. Due to special conductive fiber technology, the product can be manufactured in bright, friendly colours instead of the usual dark colours for conductive coatings. The hardened coating is suitable for use in commercial and industrial areas where an electrically conductive floor is required. The applications span many industrial and commercial areas, e.g. storage areas with forklift traffic, to avoid static charges on the device and people, floors with requirements for explosion protection, e.g. in areas with flammable substances such as laboratories, chemical-technical manufacturing and storage areas. ROMPOX® 1102 EA coating is equipped with very good mechanical resistance and good chemical resistance, e.g. against alkalis, oils, fats, water, salt solutions and various acids. Due to the conductive setting, there may be technical deviations in colour.

2. Technical data for liquid components

2.1 **Technical data:**

System:	2 component epoxy/amine resin system		
Density (AB) at 23°C:	1,45	g/cm ³	DIN EN ISO 2811-1
Viscosity:	2.000-2.500	mPas	DIN 53019
VOC content	<500	g/l (EU-Norm, max. 500 g/l)	EU 2004/42/II/A
Waste key comp. A	08 01 11		acc. to AVV
Waste key comp. B	08 01 11		acc. to AVV
Waste key comp. AB	07 02 13	hardened form	acc. to AVV
GISCODE	RE 30	(Change 05/18)	Bau BG

2.2 **Delivery form:**

ROMPOX® 1102 EA: Bucket combination 12kg, Hobbock combination 30kg
ROMEX® standard colour tones, see paintchart, special colours on request.
Due to the conductive setting, there may be technical deviations in colour.

2.3 **Storage:**

In compliance with the regulations and technical rules applying to hazardous substances.
Storage of unopened containers, in cool, dry, frostfree rooms. Ideal storage temperature is approx. 15°C for unopened containers and storage life is 12 months. Temperatures below +10°C and above +35°C should be avoided. After opening, the containers should be used up as soon as possible. Protect contents against moisture. Before use, the material needs to be brought up to ambient temperature.

3.0. Technical data for application

3.1 **Surface requirements before application:**

The surface must be loadbearing, even, dry and free of oil, grease, separators and dust. Loose particles and other dirt must be removed. In general the surface should be prepared by shotpeening and then primed. In some cases it may be necessary to carry out grinding or milling. The adhesion strength of the surface needs to be ≥1,5 N/mm². Residual moisture of the concrete must be ≤4 CM% (CM machine). Before coating the concrete surface must be evened out using a primer or scraping

filler such as ROMPOX® 1506, in order to achieve an extremely smooth surface. For cement surfaces with increased residual moisture ≤6 CM% ROMPOX® 1506 should be used, for higher residual moisture >6 CM%, ROMPOX® 1504. Highly porous surfaces need to be primed twice! In all cases, it is necessary, that after priming, all pores on the surface are sealed. Metal surfaces should be treated according to the Swedish norm SA 2 ½ acc. to ISO Norm 8501-1 and then primed with ROMPOX® 1101.

Due to the numerous variations in surfaces – especially with old coatings – we recommend that a sample coating is laid, in order to eliminate any reactions that cannot be calculated in advance. Conductive coatings must be applied in the prescribed layer thickness which is why it is very important to do careful surface preparation.

3.2 **Technical data for application:**

Mixing ratio:	A : B	100 : 20	weight parts	
Application time at:	10°C:	50	mins.	ROMEX® NORM 04
	20°C:	30	mins.	ROMEX® NORM 04
	30°C:	25	mins.	ROMEX® NORM 04
Pot time at:	23°C:	35	mins.	ROMEX® NORM 04
Min. hardening temperature:		+10	°C (floor and air temperature)	
Application temperature		15-30	°C (floor and air temperature)	
Thaw/Dewpoint distance:		≥3	°C	
Air humidity:		≤75	% rel. humidity	

Please note: *The times mentioned in item 3.2 are approximations and will vary with differing ambient conditions.*

3.3 **Application instructions:**

Component B (hardener) is poured completely into component A (resin) and stirred well using a slow rotating mixer (approx. 300 rpm, diameter of whisk approx. 1/3 the diameter of container). Keep mixing until the coating mass is homogenous and clump free. In case of using part measurements (mix A component first, homogeneously), these need to be weighed exactly using an electronic scale according to the stated mixing ratio. Mix only the quantity that can be used within the pot time. Do not use straight from the delivery container! Avoid mixing air into mixture. After mixing, pour into a clean container and stir again. Application should be done immediately after mixing using a squeegee or notched trowel (i.e. Pajarito 48) by laying an evenly thick layer onto the prepared surface. The product is made for optimum aeration, but it is still recommended to use a pinfeed platen to improve coverage to surface, levelling and removing of air bubbles. Rolling with the pinfeed platen should be done after 10-15 minutes. In order to apply evenly, always work "fresh on fresh" and before beginning work, mark out work areas. Sprinkling is not recommended on conductive coatings as this reduces conductivity.

Please note: *A minimum consumption of ROMPOX® 1102EA of 1,9 kg/m² is recommended. Conductive value measuring can be carried out from day three, protocol measuring from day seven.*

If the surface is at risk of rising damp, then to prevent osmosis, apply ROMPOX® 1506 or ROMPOX® 1504 with at least 2x 0,300 kg/m² aufzutragen.

Ground and air temperatures must not go below 10°C and air humidity must not be above 75%. The temperature difference between floor and room must not be less than 3°C, so that hardening/curing is not impaired. If a thaw/dewpoint situation occurs, then normal hardening/curing is hindered and hardening faults and marks can occur. Avoid water contact to surface for the first 7 days. The stated hardening times are for 20°C, at lower temperatures, the application and hardening times become longer, at higher temperatures, shorter. If the application conditions are not met, then deviations may occur with the technical properties of the end product (surface and loadbearing capacity). In case of surface and material temperatures below +15°C, or when going below the dew/thaw point distance, levelling and surface faults can occur as well as adhesion problems within the coating system!

3.4 Application example as EA coating on cementbound surface

Work process	Product	Consumption	Application
Surface preparation			See item 3.1
Primer	ROMPOX® 1505 Primer	min. 0,3 kg/m²	Flooding using rubber squeegee and then with rollers
Sprinkling if required *	Firedried quartz sand with Ø 0,1-0,5 mm	approx. 0,5 kg/m	Sprinkle evenly
Scraping filler	layer thickness of 1mm each 1 wp ROMPOX® 1505 1 wp ROMPOX® FG 10	min. 0,8 kg/m ² min. 0,8 kg/m ²	With 1 lip hard rubber squeegee or smoothing trowel, smooth well with sharp edge.
Conductive tape	ROMPOX® 1106 ESD copper tape	approx. 0,002m/m²	Remove protective strip and apply with light pressure.
Conductive layer	ROMPOX® 1104 ESD conductive paint	approx. 0,15kg/m²	Apply with fur roller crosswise
EA Coating	ROMPOX® 1102EA EA coating	min. 1,9-2,4 kg/m²	Apply with smoothing trowel or notched trowel and aereate with metal pinfeed platen
Optional: first maintenance, twice	ROMEX® Maintenance sealant, antistatic	approx. 25-40 g/m ² per application	Apply 2 x with mop

* **Note:** If no scraping filler was applied to the primer, then sprinkling should be avoided.

Copper tape to conduct to earthing point should be stuck in a grid format every 6 - 8 m, approx. 1 – 2m into the space. Earthing connection to be done by electrician acc. to VDE regulations.

3.5 **Cleaning:**

Each time work is interrupted, clean all tools and equipment with a general solvent (i.e. ethanol, white spirits).

4.0. Technical data of hardened product

4.1 **Technical data of hardened product:**

Re-application at:	23°C	14-48	min./ max. hrs.	ROMEX® NORM 07
Can be walked on at:	23°C	14-18	hrs.	ROMEX® NORM 07
Fully hardened at	23°C	>7	days	ROMEX® NORM 07
Conductivity		approx. 10⁶	Ω (Ohm)	DIN EN 61340-4-1, DIN IEC 61340-5-1/2
Compressive strength:		60	N/mm ²	DIN EN 1015-11
Bending tensile strength:		27	N/mm ²	DIN EN 1015-11
Shore-D-hardness:		± 80	N/mm ²	DIN 53505
Abrasion (Taber Abraser)	1000g/CS10	<50	mg	DIN EN ISO 438-2

4.2 Properties of coating:

- Totally solid according to Giscode (Test method German Building Chemical)
- Electrically volume conductive
- Light, coloured surface
- Balanced resistances
- Resistant to hydrolysis and saponification
- Hard elastic abrasion resistant

Note: *If possible, always use material from the same production batch, especially on visible surfaces, as material from different production batches, may have slightly differing colour nuances. Hardened, liquid plastics are subjected to environmental factors i.e. UV rays and can thus change visually after hardening (i.e. yellowing, loss of gloss, white discolouration). The functioning of the industrial floor is not affected by this and does not constitute a fault. The colours of the products depend on raw materials and production methods and may have slight deviations compared to the RAL colours. It cannot be guaranteed that there will be exact matching of RAL colours.*

4.3 Maintenance

In order to maintain the properties of a synthetic resin floor longterm, we recommend carrying out regular maintenance. Please request our ROMEX® maintenance guide. In order to maintain and refresh the surface, the cleaning should be carried out at regular intervals using 5% ROMEX® maintenance sealant, antistatic.

5. Safety instructions

The products contain reactive materials and are partly hazardous to health in a non-hardened state. The hardener components can cause burns due to high alkali content. It can also cause irritation or skin sensitization. Avoid skin contact. If the product does get onto the skin, wash well with soap and water. If the product gets into the eyes, rinse well with water (keep an eye wash bottle on site) and seek medical treatment immediately. The guidelines in the regulations of handling hazardous materials apply as well as information sheets provided by the professional association of the chemical industry (i.e. BG-Bau, BGR 227 „Handling of epoxy resins”). Exact details on the handling of this product can be found in the safety data sheet for ROMPOX® 1102 EA, comp. A and B.

6.0. Important instructions: CE identification

DIN EN 13 813 "Screed mortars, screed mass and screeds – properties and requirements" (Jan. 2003) sets out requirements for screed mortars that are used for floor construction in interior rooms. Synthetic resin coatings and sealants are also included in this norm. Products that are in accord with the aforementioned norm are to be given the CE identification mark.

CE	
ROMEX® GmbH • Mühlgrabenstr. 21 • D - 53340 Meckenheim	
13 ¹⁾	
EN 13813 SR-B1,5 -IR 4-AR1	
Synthetic resin screed/coating for interior use in buildings (application according to technical specifications)	
Effects when burned:	Efl-s1
Release of corrosive substances (Synthetic Resin Screed):	SR
Water permeability:	NPD ³⁾
Abrasion Resistance:	AR 0,5 ⁴⁾
Adhesion strength (Bond):	B 1,5
Impact Resistance:	IR 4
Impact noise insulation:	NPD ³⁾
Noise absorption:	NPD ³⁾
Thermal insulation:	NPD ³⁾
Chemical resistance:	NPD ³⁾

The aforementioned information and instructions for application are based on our experience. Due to the numerous types of surface, application methods and physical conditions when using our materials, the information contained in these technical specifications cannot be used to make any legal claims with regard to the guarantee for the results when working with this product. The user himself is solely responsible for the results and must test the suitability of the materials. We reserve the right to make changes to the technical specifications. Only the newest version of the technical specifications is valid and this can be downloaded at www.romex-mb.de or requested from us in writing.

LEGEND:

- 1) the last two numbers of the year in which the CE identification was attached
- 2)
- 3) NPD = No Performance Determined
- 4) applies to the smooth, non sprinkled coating

NOTES:

Our recommendations, which are given to assist buyers & endusers, are based on our experience and correspond to the current levels of knowledge in science and practice, however they are not binding and have no legal force. It is recommended adapting methods and quantities of product to the local needs. If necessary a sample surface should be laid beforehand.

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