

Coating technology

POLYURETHAN- BESCHICHTUNG PU 400



- > glossy
- > dynamic crack bridging
- > cold-elastic
- > reduces impact noise
- > resistant to yellowing



Product description

Solvent-free, glossy, self-levelling, resistant to yellowing, cold-elastic, impact noise-reducing, two-component polyurethane-based reactive resin. Indoors and outdoors for the production of coloured, industrial floors which can be walked, with medium to heavy capacity on cement-bound substrates or hard mastic asphalt screeds.

Delivery format

Container	Outer packaging	Pallet
12 KG / BHO	-	33 BHO
4 KG / BKA	-	99 BKA

Storage

Can be stored frost-free, cool, and dry on wooden shelves in the unopened original container for 180 days

Processing

Recommended tools

Slow-rotating electric agitator, suitable mixing vessel, trowel, smoothing trowel, spatula, micro paint roller, hand or surface rake, rubber broom, de-aeration roller.

Mixing

Component A and component B are basically delivered in the relevant correct mixing ratios. A scale must be used to determine partial quantities. Thoroughly mix component A via a slow-rotating electric agitator (approx. 300 rpm), then add component B and continue mixing until a homogeneous, lump-free consistency is reached (approx. 2-3 minutes). To prevent mixing and/or proportioning mistakes, the mixed material must be decanted into a clean, dry container (re-potted) and stirred thoroughly again.

Processing

Depending on the application, pour the material onto the pretreated substrate section by section and distribute across the entire surface with a suitable tool.

- apply as scratch filler (to mastic asphalt screeds) filled with QS

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- apply as coating filled or unfilled and aerate in fresh conditions with suitable tool
- apply as topcoat via rubber broom and roll
- on vertical or inclined surfaces the mixed coating is to be blended with thixotropic agent

Requirements for the bituminous substrate (GE):

The substrate must be dry, stable and free of separating, intrinsic and dissimilar substances, pursuant to the IBF Directive - industrial substrates of reaction resin. Industrial floor coating on existing mastic asphalt for medium mechanical loads.

Coating prerequisites for mastic asphalt screeds:

(Quality grade GE 10):

This is prepared by means of a suitable mechanical process, such as shot blasting. (75% of the additive must be exposed, adhesive tensile strength 1.5 N/mm²)

Technical data

Density	Comp. A + B approx. 1.4 g/cm ³
Viscosity	Comp. A + B approx. 3500 mPa*s
Colour	RAL 9010, 7001, 7035, 7032
Consumption	approx. 1.4 kg/m ² per mm
Mixing ratio	A:B = 3:1
Processing time	20 - 25 min (at 20°C)
Recoatibility	after approx. 18 hrs
Shore-D hardness (7d)	approx. 50

Test certificates

Tested in accordance with (standard, classification ...)

EN 1504-2:2005

Substrate

Suitable substrates

Requirements for mineral substrates:

The substrate must be dry, stable and free of separating, intrinsic and dissimilar substances, pursuant to the IBF Directive - industrial substrates of reaction resin. Residual moisture max. 4 % by weight, measured with the CM device. Substrate temperature greater than 12 °C and 3 K above dew point; adhesive tensile strength on average 1.5 N/mm²; adhesive tensile strength smallest single value 1.1 N/mm²

For a perfect system

Description

High quality coating on mastic asphalt

1. Substrate preparation: shot blasting/milling and dust-free vacuuming
2. Equalising: polyurethane coating PU 300 approx. 50% filled with quartz sand
3. Coating: polyurethane coating PU 400
4. Chips spreading (optional): Murexin spreading chips (loose spreading)
5. Topcoat (optional): polyurethane sealant PU 40 (matt)

Product and processing instructions

Material information:

- If processing outside the ideal temperature and/or humidity range the material properties could change markedly.
- Bring the materials to the proper temperature before processing!
- In order to maintain the product properties, do not add any foreign materials!
- Water dosing quantities or dilution information must be strictly adhered to!
- Check tinted products for colour accuracy before application!
- Colour consistency can only be guaranteed within the same batch.
- The colour formation is significantly impacted by the environmental conditions.
- Carefully open the container and shake the product well!
- Use a scale to mix partial quantities!
- Reactive resins are to be processed as quickly as possible after mixing.
- Water-based systems have only a limited shelf life after dilution with water, which is why quick processing is recommended.
- With water-based systems, the water quantity specified by the manufacturer may only be added after stirring components A and B.
- Always allow primer to dry/harden well.
- Observe the odours caused by solvent-based systems.
- At a constant temperature of + 20 °C, applied reactive resins can be walked on after 1 day, are mechanically resistant after 3 days and chemically resistant after 7 days.
- With UV loads and the influence of certain chemicals, the surface can discolour or yellow, which does not impair the functionality and usability of the coating.
- The shade designations listed (RAL, NCS,...) are to be understood as shade descriptions without guaranteed matching of the original shade chart.
- If you are using different products (on the same object), colour consistency can not be guaranteed even if the colours have the same designation.
- Note that the colour will change when adding quartz sand, thixotropic agents, suspending agents or similar!
- Residual quantities which are not needed and which have already been mixed must be mixed with quartz sand (smoke generation).

Environmental information:

- Do not process at temperatures below +5 °C!
- The ideal temperature range for the material, substrate and air is + 15 °C to + 25 °C.
- The ideal relative humidity range is 40% to 60%.
- Increased air humidity and/or lower temperatures may prolong the drying, setting and hardening time, while lower air humidity and/or higher temperatures will speed it up.
- Ensure adequate ventilation during the drying, reaction and hardening phase; avoid draughts!
- Protect against direct sunlight, wind and weather!
- Protect adjacent components!
- The substrate temperature must be at least 3 K above the dew point.
(The corresponding dew point temperature can be determined via the prevailing relative air humidity and the air temperature from a dew point table.)
- Protect against contaminants (dust, insects, foliage etc.) during the reaction phase!
- If the time window of 48 hours is exceeded between the individual work steps, intermediate sanding is required!
- We recommend systems which are resistant to yellowing in areas exposed to UV.
- The substrate must be prepared by means of a suitable mechanical process.

Tips:

- We recommend using a test surface first or a small area for initial, small-scale testing.
- Please heed the product data sheets of all MUREXIN products used in the process.
- Keep a genuine original container of the respective batch for later repair work.
- To avoid sediments and visible transitions between work tracks, these are to be processed offset for longer lengths!
- Abrasive, scraping mechanical loads cause wear marks.
- Contact with vehicle tyres or other plastics which contain plasticiser can lead to discolourations, impressions or softening of the surface.
- For defined structures in terms of anti-slip classes, fire classes and decorative surface designs, please refer to the "Service" area on www.murexin.com
- To minimise the formation of increased temperatures, odour and smoke with mixed residual quantities that are no longer needed, we recommend mixing them with quartz sand in good time!

The information provided reflects average values that were obtained under laboratory conditions. Due to the use of natural raw materials, the indicated values of individual deliveries may vary slightly without impacting the product suitability.

Safety instructions

Please refer to safety data sheet for product-specific information with regard to composition, handling, cleaning, corresponding actions and disposal.

Limiting and monitoring exposure

Personal protective equipment:

General protection and hygiene measures:

- Common safety measures for handling chemicals are to be observed.
- Keep away from foodstuffs, beverages and feedstuffs.
- Take off contaminated, impregnated clothing immediately.
- Wash your hands before taking breaks and when finishing work.

Breathing protection:

- Use a breathing filter device for short term or minor exposure; for more intensive or longer exposure, use a self-contained breathing apparatus.

Hand protection: protective gloves.

Glove material

- Use gloves made from stable materials (e.g. nitrile).
- The selection of a suitable glove depends not only on the material, but also on other quality properties, which may vary from manufacturer to manufacturer.

Penetration time of the glove material

- The precise penetration time is to be found out from the protective glove manufacturer and complied with.

Eye protection: Protective goggles recommended when decanting.

Body protection: protective clothing.

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Please observe the current, technical, national and European standards, guidelines and data sheets regarding materials, substrates and the subsequent construction. Please contact us if you have any reservations or doubt.

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