



# BAYCOTECH-122

## Highly elastic, very heavy duty, polyurea based sprayable waterproofing coating

### Description:

BAYCOTECH-122 is a high quality, two component reaction resin based on polyurea.

### Areas of application:

BAYCOTECH-122 is used primarily in exterior and interior locations on steel reinforced concrete and steel surfaces such as e.g. in waste management

- Outlet free waste collection pits
- Retention bunds

### Properties/Advantages:

- solvent free
- 100% solids
- extremely rapid setting
- relatively insensitive to moisture
- high impact and abrasion resistance
- crack-bridging up to 2.0 mm
- protects against corrosion
- impermeable to liquids
- resistant to a variety of chemicals, solvents, acids and alkalis
- resistant to weathering
- UV resistant
- tolerates radiated heat (temporarily up to +200° C)
- exceptional bond to reinforced concrete, steel, GRP, wood etc.

### Technical data:

Basis:	Polyurea
Solids content:	100%
Density (Isocyanate) at +23° C:	1.12 g/cm <sup>3</sup>
Density (Amine) at +23° C:	1.00 g/cm <sup>3</sup>
Mixed density at +23° C:	1.10 g/cm <sup>3</sup>
Mixed viscosity at +70° C:	90 mPas
Shore hardness (D)	
(24 hrs/+23° C/50% RH):	approx. 55
Abrasion resistance:	0.03 mm
(250,000 load cycles)	

Tensile strength:	30.0 N/mm <sup>2</sup>
Elongation at break:	> 400 %
Mixing ratio:	1:1 by volume
Application temperature (Amine/Iso):	70 – 80 °C
(Tank and hose assembly the same in each case)	
Application pressure:	165 – 175 bar
Application surface temperature:	min. +5 °C
Gel time at +20° C:	8-10 seconds
Tack free +20° C:	23-25 seconds
Final cure at +20° C:	2 days
Consumption:	1,1 kg/m <sup>2</sup> /mm
Recommended film thickness:	minimum 2.0 mm

### Packaging:

440 kg unit:

1 x 220 kg Amine component A

1 x 220 kg Isocyanate component B

The weight ratios given relate to a balanced volume ratio of 1:1. Before filling the heated spray equipment containers, thoroughly mix the pigmented polyamin (A) component until a homogeneous even clour is achieved. Use an appropriate drum stirrer.

### Shelf Life:

6 months in the original unopened packaging (on pallets) when stored dry at a room temperature of +15°C to +25°C.

### Surface preparation:

Concrete, PCC mortar, render, brickwork, GRP panels, carbon steel, V2A and V4A steel. The substrate must be load-bearing, clean, dry or damp and free from materials that will impair adhesion. Unstable surfaces, or poorly bonded layers e.g. oils, greases, release agents or surface finishes and paint residues must be completely removed.

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## Notes:

Residual moisture in cement-based substrates: dry or damp

### “Dry”

After chopping out a fresh piece, about 2 cm deep, it may not visually lighten due to drying out.

### “Damp”

The surface has a matt-damp appearance but there may not be a shiny film of water. The pore system of the concrete substrate must not be saturated i.e. water dropped onto it must be absorbed and after a short time the surface must look matt again.

Dependent on the condition of the substrate to be treated, suitable means of preparation are to be employed such as e.g. high pressure washing, scabbling, shot blasting, planing.

Dependent on the particular substrate the following additional minimum requirements for cement-based surfaces must be fulfilled:

Concrete quality: min. C 20/25

PCC mortar: in accordance with DIN EN 1504-3

Tensile adhesion strength: mean value: 1.5 N/mm<sup>2</sup>  
lowest value: 1.0 N/mm<sup>2</sup>

Render: PIII

Tensile adhesion strength: mean value: 0.8 N/mm<sup>2</sup>  
lowest value: 0.5 N/mm<sup>2</sup>

## Important advice:

Oil contaminated substrates pose a particular problem; we recommend contacting our Technical Services Department.

Prior to the application of BAYCOTECH-122, the substrates mentioned above are to be properly prepared with the following primers:

**Dry cement based substrates:** BAYCOFLOOR-EP1260

**Damp cement based substrates** (Increased residual moisture > 4% and where there is a risk of moisture penetration from the rear: BAYCOFLOOR-EP1240

## Product installation:

A pre-requisite for handling BAYCOTECH-122 is the provision of professional equipment that ensures continuous pressure, temperature, electrical connection and working conditions.

The applicator must be qualified to use high performance polymer-based spray applied coatings.

## General advice:

The temperature of both material components A (isocyanate) and B (polyamine) should be brought to approx. 20-25°C before application. Keep to a surface temperature of approx. +5°C to +30°C, a relative humidity of max. 80-85%, and be aware of the dew point. Especially in higher temperatures and/ or higher humidity the substrate temperature should be a minimum of +3°C above the dew point during the coating process.

BAYCOTECH-122 can be applied in one or several operations to achieve the desired film thickness. The product is to be applied one coat at right angles to the other including on vertical surfaces or overhead areas. Warning: When spraying there will be atomized spray. The appropriate precautionary measures must be met.

## Working equipment:

To apply BAYCOTECH-122 heatable, two component high pressure spray equipment is required.

Both components are to be brought to an operating temperature of 70-80°C over separate heating elements, in order to achieve the optimum viscosity.

The tempered material is transported via a heated pipe feeder. During the application the temperature is kept constant.

The two components are mixed together in the mixing head of the spray gun and must be carried out at a pressure of 160-180 bar. Tools must be cleaned immediately with an organic solvent. Cured residues can only be mechanically removed.

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## **Advice:**

- Only open the drums when commencing the installation work and protect both components from damp with appropriate means such as desiccant or nitrogen.
- Do not spray onto wet surfaces.
- Keep the drums at the specified temperature and pre-warm as necessary.
- BAYCOTECH-122 changes colour or darkens on exposure to UV rays.
- BAYCOTECH-122 is only to be used by trained professionals.
- Before starting work, read all product information, application instructions, technical data sheets and MSDS.
- Wear eye protection and protective clothing during application.
- Applications that are not clearly explained in this technical data sheet may only be carried out after consultation with and written confirmation from the Technical Services Department of AB-SCHOMBURG.
- All publications may be expanded or changed by the manufacturer without advance notice.