

**General Description:**

Nano-Seal B4AC is a dark or pale grey 2-component composite material with improved resistance against acids and aggressive chemicals. It is partly reinforced with ceramics and cures fast. B4AC is used as protection against a combination of abrasion and chemical attack.

**Specific Properties:**

- Very good chemical resistance
- Fast cure
- Very good adhesion
- Hard
- Good thermal resistance
- Low viscosity
- Good levelling

**Fields of Application:**

Nano-Seal B4AC is used on sandblasted surfaces of pumps, rolls, screw conveyors, funnels, tanks, propellers, heat exchangers.

We recommend trials prior to the application in particular if the part to be coated is in addition subject to elevated temperature and mechanical stress.

**Technical Data<sup>1)</sup>:**

Color:	Dark or pale
Spec. weight:	1,6 g/cm <sup>3</sup>
Sag resistance (0,3 mm):	no sagging
Shore-D:	> 85
Shrinkage:	< 0,2 %
Thermal resistance dry:	110°C
Thermal resistance wet:	70°C

**Chemical Resistance (20°C)<sup>1)</sup>:**

Mineral oil	1	Ketones (generally)	2
Petrol	1	Acetone	2-3
Hydrochloric acid up to 10 %	1	Esters (generally)	2
Hydrochloric acid up to 20 %	1	Ethyl acetate	2
Sulphuric acid up to 10 %	1-2	Chlorinated hydrocarbons (gen.)	2-3
Caustic soda up to 30 %	1	Methylene chloride	3
Conc. Potassium hydroxyde	1	Toluene	1
Conc. Ammonium hydroxyde	1	Refrigerants	1-2
Acetic acid up to 5 %	1-2	Naphta	1
Salt water	1	Diesel	1-2

1: Fully resistant

3: Resistant when immediately wiped off

2: Short immersion possible

4: Not resistant

**1) Please note: There is a decrease of the chemical resistance and hardness at elevated temperature.**

**Processing**

- Remove all soiling (ideal is acetone). In particular oils and grease have to be removed thoroughly. Afterwards dry the surface.

- Roughen the surface up to about 100 µ. Sand blasting is ideal.
- Mix resin (component A) and hardener (component B) in the correct mixing ratio as indicated below. Use an electric stirrer and make sure that all zones of the container are stirred. A homogeneous color indicates that the process can be finished.
- Pour repeatedly in another container in a thin stream thus removing entrapped air.
- First apply a thin adhesion layer under pressure. Then add additional material up to the final thickness.
- Apply at least two layers. The second layer has to be applied onto the still sticky first layer (1 – 2,5 h/20°C)!

### Processing Modes:

B4AC is ideally applied by brushing. Rolling is also possible.

### Conditions for Processing:

Minimum temperature:	10°C
Max. humidity:	80 %
Temperature of the surface to be coated:	At least 3°C above dew point
Minimum thickness:	0,4 mm (B4AC is ideally applied in two layers resulting in a layer thickness of at least 800 µ)

### Mixing Ratio (by weight):

Resin (component A, liquid-putty, grey)	6,5		
Hardener (component B, liquid, pale yellow)	1		
Typical quantities:	100 g	250 g	500 g
Resin:	86,7	217	433
Hardener:	13,3	33	67

### Pot Life (25°C, 100 g):

Ca. 20 min.

### Curing at 25°C:

Light mechanical load:	after 12 h
Full mechanical load:	after 36 h
Chemically fully resistant:	after 72 h
	(the chemical and thermal resistance can be increased further by annealing at 90°/1h)

### Coverage:

Coverage of one sqm (thickness: 0,5 mm) requires 0,8 kg.

### Additional Information:

Storage:	Below 35°C; close container thoroughly.
Shelf life:	The material can be stocked in originally closed containers for at least 12 month. After long storage the resin has to be stirred prior to use.
Safety:	Read material safety data sheet prior to use.

The technical data mentioned in this technical data sheet have to be regarded as rough guidelines. They have been obtained in our laboratory under optimal conditions. For the suitability of the product for specific applications we do not take the responsibility and we deny any liability. We recommend to do trials under conditions which reflect the individual practical application prior to the use of the material for the real application.