

## EP2490 SELF-SMOOTHING FLOOR

### PRODUCT DESCRIPTION

Arturo EP2490 Self-smoothing Floor is an electrically conducting, coloured, solvent-free, epoxy-based floor finish for indoor areas.

### AREA OF APPLICATION\*\*\*

It is suitable on ESD-protection-zones, where a small electrostatic charge and a conductive surface are required. Arturo EP2490 is especially suitable as a finish on floors that are exposed to light and medium loads on mineral subsoils, for example for:

- ▶ Rooms with sensible electronics
- ▶ Semiconductors and electronics industry
- ▶ Microbiology and chemistry
- ▶ Pharmacy
- ▶ Production rooms for electric parts

### PRODUCT FEATURES/BENEFITS

- ▶ Electrically conducting
- ▶ Component protection
- ▶ Correspond ESD requirements according to DIN EN 61340-5-1
- ▶ Resistant to impacts, shocks and wear
- ▶ Impermeable to liquids
- ▶ Available in lots of colours
- ▶ Easy handling
- ▶ Self-smoothing

### TEST/APPROVAL

- ▶ Anti-slip properties in accordance with DIN 51130 and BGR 181: R9. Available on request.
- ▶ Testing on chemical resistance in accordance with DIN EN ISO 2812-3.
- ▶ Classification and testing of the fire resistance according to BS EN 13501-1 within several Arturo flooring systems.
- ▶ Abrasion resistance in accordance with Taber.



### PRODUCT DATA

Packaging size	Set: A + B = 10 kg: A = 8,50 kg B = 1,50 kg
	Set: A + B = 25 kg: A = 21,25 kg B = 3,75 kg
Shelf life	Approx. 6 months from date of production
Colour	See colour-list for Arturo EP2490

### TECHNICAL DATA

Tensile strength (7d/21°C/60% r.h.)	19 MPa (N/mm <sup>2</sup> )
Compressive strength (7d/21°C/60% r.h.)	58 MPa (N/mm <sup>2</sup> )
Density	Approx. 1.46 kg/dm <sup>3</sup>
Consumption	Approx. 1.50 kg/m <sup>2</sup> /mm. Max. 3.75 kg/m <sup>2</sup>
Mixing ratio	85.0 part by weight comp. A 15.0 part by weight comp. B
Pot life	Approx. 25 minutes*
Dust-dry	After approx. 6 hours*
Ready for foot traffic	After approx. 24 hours*
Full mechanical resilience	After 3 days*
Chemically resistant	After 7 days*
Layer thickness	Approx. 2.00 mm (max. 2,5 mm)
Frost resistance	Yes
Solids content	100%
Viscosity (23°C)	Approx. 2.100 mPa·s
Shore-D (7d/21°C/60% r.h.)	Approx. 80
Pressure sensitivity	Long, heavy load may lead to pressure marks.
Abrasion resistance Taber (7d/21°C/60% r.h.)	Approx. 48 mg (CS-10/1000U/1000g)



Hard-wearing  
and good scratch  
resistance



Impermeable



Low  
maintenance and  
maintenance friendly



No seams



Classification of  
fire resistance



Electrically  
conducting

## SUBFLOOR

The subfloor must be firm, able to bear sufficient loads and have adequate grip. It must be free of grease, oil and non-adherent components. It must also be free of any layers or contaminants that could reduce the adhesion. (Compressive strength at least 25 MPa (N/mm<sup>2</sup>), average tensile strength >1.5 MPa (N/mm<sup>2</sup>), smallest single value > 1.0 MPa (N/mm<sup>2</sup>)).

Prior to work, the subfloor must be adequately dry:

- ▶ Cement screed subfloors: < 4 CM%
- ▶ Anhydrite: < 0.3 CM%
- ▶ Magnesite: 2-4 CM%
- ▶ Concrete class > B35: < 3
- ▶ Concrete class < B35 > 4

For Sweden and the UK, below 75% r.h.

## SUBFLOOR PREPARATION:

Remove non-adherent layers and contaminants by suitable mechanical means (e.g. shot blasting, milling or sanding). Then remove all dust using an industrial vacuum cleaner. Larger repairs and the filling of gaps, holes and other unevenness must be carried out with Arturo EP1500 Repair Mortar.

## SYSTEM STRUCTURE

At least one layer of Arturo EP6200 Scratch Coat must always be applied to the prepared subfloor. The copper tape is then bonded to the Arturo EP6200 Scratch Coat. For areas < 40 > 40 m<sup>2</sup>, ensure there is at least one connection point for each 40 m<sup>2</sup> of surface. Ca. 1 m<sup>1</sup> copper tape must be bonded on the floor per 40 m<sup>2</sup>.

### Conducting layer:

Apply a layer of Arturo EP6400 Conducting Primer (for processing instructions see the technical data sheet). The Arturo EP6400 Primer is suitable for foot traffic after ca. 8 hours. Prior to applying the top coat the electrical conductivity of this conducting primer layer should be tested.

### Conducting top coat

Apply the conducting Arturo EP 2490 Self-smoothing Floor in a thickness to max. 2 mm. Thereafter, the surface of the floor must be tested to check it has the required electrical conductivity.

## PROCESSING CONDITIONS

Minimum subfloor temperature: + 10°C and + 3°C above the dew point.

Room/processing temperature:

- ▶ Min: + 15°C
- ▶ Max: + 30°C
- ▶ Optimum: + 20°C

Maximum relative humidity: 80%

(In general, higher temperatures shorten the pot life, whilst lower temperatures prolong the curing).

## PROCESSING INSTRUCTIONS

Stir component A thoroughly. Add component B and mix for at least 3 minutes with an electrical mixer (speed ca. 300 – 400 rpm). Then transfer to a clean bucket and mix thoroughly once again for 1 minute. Pour the mixture onto the subfloor and distribute with a flat trowel or notched trowel (Wolff S4) to the desired layer thickness.

## ESD-REQUIREMENTS

Protection of electronic devices | IEC 61340-5-1

Resistance to earth IEC 61340-4-1	< 10 <sup>9</sup> Ω
Footwear and flooring in combination with a person IEC 61340-4-5	< 10 <sup>9</sup> Ω
Walkingtest IEC 61340-4-5	< 100 V
Protection for safety IEC 60364-4-41	<500 Volt: ≥ 5 x 10 <sup>4</sup> Ω >500 Volt: ≥ 10 x 10 <sup>4</sup> Ω

## SHELF LIFE

The two components must be acclimatised in the working area prior to use for at least 24 hours. Store under dry, cool and frost-free conditions in the original, sealed containers.

## EU-REGULATION 2004/42

In accordance with EU Regulation 2004/42 the maximum permitted concentration of VOCs (product category IIA/j, type wb) is 500 g/l in the ready-to-use state (version 2010). The VOC content of Arturo EP2490 in the ready-to-use state is < 500 g/l VOC.

## DATA SOURCES

All technical data, measurements, etc. given on this data sheet are based on laboratory tests. Due to circumstances beyond our control, actual data may deviate from the indicated values.

## DISCLAIMER

The information on this product sheet concerning the processing and application of this product is based on our experience with the product under standard conditions and with correct product storage and use. In practice, differences between equipment, subfloor and working conditions mean that no guarantee for a specific work result nor any liability, arising out of any legal relationship whatsoever, can be inferred either from the information on this data sheet or from any verbal advice given, unless caused by intent or gross negligence on our part. In this case the user must demonstrate that he has promptly forwarded to us in writing all necessary information for proper and effective evaluation of the circumstances. Users must test the products to check whether they are suitable for the intended application. We reserve the right to amend the information on technical data sheets. The intellectual property rights of third parties must be heeded. The most recent technical data sheet always applies. This can be requested from us or downloaded from [www.arturoflooring.com](http://www.arturoflooring.com). Our general terms and conditions of sale and delivery also apply.

## PROTECTION OF THE WORKPLACE AND ENVIRONMENT

Solvent-free. Non flammable. Comp. A: Contains epoxy resin/irritant. Comp. B: Contains amine hardener/corrosive. Both components: May cause irritations or burns to eyes, skin or respiratory system. May cause sensitisation by skin contact. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Use barrier cream, protective gloves and safety-goggles. In liquid form, "hazardous to the environment", therefore do not allow into drains, water courses or landfill. Observe safety information on product label as well as safety data sheet. Once cured, has neutral odour and presents no physiological or ecological risk.

## DISPOSAL

Where possible, collect product residues and re-use. Do not empty into drains, sewers or ground. Empty, scraped and drip-free containers are recyclable. Liquid residues as well as containers with liquid residues are special waste, those with mixed and cured residues are Construction Waste. Therefore collect waste material, mix both components, allow to harden, then dispose as Construction Waste.

\* At 20°C, 65% relative humidity.

\*\* Avoid large temperature fluctuations and differences, this can lead to a temperature shock which has a negative influence on the final result.

\*\*\* For recreation rooms systems with AgBB certification must be used.