

# APSELIV AS

ELECTRICALLY CONDUCTIVE,  
SELF-LEVELLING TWO-COMPONENT  
EPOXY COATING



## DESCRIPTION

APSELIV AS is a pigmented two-component formulation based on epoxy resins, containing conductive fillers and powdered extenders, suitable for making finishes in electrically conductive self-levelling flooring cycles according to UNI EN 10966. Once hardened, it creates a waterproof, electrically conductive coating with excellent chemical and mechanical resistance.

## FIELDS OF APPLICATION

It is used for floor coverings with a minimum self-levelling thickness from 1 mm to 2 mm. It can be used for floor coverings with the following applications

- Coatings for the chemical and pharmaceutical industries;
- Coatings for laboratories, sterile rooms and hospitals;
- Coatings for precision mechanical, electrical and electronic industries;
- Coatings for explosion-proof environments.

## PACKAGING

Comp. A = 12 kg in metal tin  
Comp. B = 4kg in metal tin

## AVAILABLE COLOURS

APSELIV AS is only produced in certain RAL colours. Please contact our Technical Department to determine which colour is **available**.

## CONSUMPTION

0.250 kg/m<sup>2</sup> APSEPRIMER AS  
2.5 kg/m<sup>2</sup> APSELIV AS  
Copper strips according to pavement geometry.

## MIXING RATIO

The mixing ratio by weight is:  
Comp. A : B = 12 : 4

## CHARACTERISTICS AND BENEFITS

APSELIV AS is a two-component, fillerised, epoxy resin-based formulation designed for the construction of conductive floors with a maximum thickness of approx. 2 mm.

## CERTIFICATIONS

APSELIV 20 complies with UNI EN 13813: materials for screeds (DoP n° 424).  
ISO 9001 certified quality management system (Certificate No. IT.17.0227.01.QMS).  
APSE S.r.l. is an active member of CONPAVIPER.



## SUBSTRATE PREPARATION

Concrete floor surfaces must be dry, clean, with no loose or crumbling parts. The relative humidity of the substrate must not exceed 4% and there must be no capillary rising damp; otherwise, apply a vapour barrier with UMIFOND 3C. Holes and large irregularities must be previously repaired with APSEFLOOR MALTA. Static cracks can be grouted with AP300 FIX.

## APPLICATION OF PRIMER APSEPRIMER NS 125

The surface must be previously treated by applying APSEPRIMER NS 125 bonding primer suitably loaded and applied with a smooth trowel (refer to the relative technical leaflet). Do not use sand dust on the primer.

## APPLICATION OF COPPER STRIPS

Laying of conductive and adhesive copper strips and connection to the earthing socket. Each earthing point is sufficient for an area of approx. 300m<sup>2</sup>. Their arrangement, however, depends on site conditions and must be defined on a case-by-case basis.

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## APPLICATION OF THE CONDUCTIVE LAYER

The conductive layer consists of the APSEPRIMER AS primer to be applied by roller in one coat over the entire surface affecting the conductive units. APSEPRIMER AS should only be applied over the primer when it is perfectly dry and hardened. Otherwise the conductivity of the APSEPRIMER AS primer could be altered. Once APSEPRIMER AS has hardened, the conductivity of the surface should be checked before applying the self-levelling coating. For further details refer to the Technical Data Sheet of the APSEPRIMER AS primer.

## PRODUCT PREPARATION APSELIV AS

Thoroughly mix comp. A (resin) then completely pour comp. B (hardener) into the container of comp. A and shake with electric mixer (drill and stirrer at 300-400 rpm) for at least 2 minutes until homogenised. Avoid excessively long mixing times to avoid incorporating too much air.

## METHOD OF APPLICATION

APSELIV AS is poured directly onto the floor and spread with a notched trowel. Immediately after laying, pass the special bubble breaker roller in criss-crossed passes to remove any entrapped air. The thickness of the coating should be approx. 1.5/2.0 mm. Greater thicknesses cause a sharp drop in conductivity.

Apply the product at temperatures between +5°C and +35°C.

## MISURAZIONE DELLA CONDUCIBILITA' ELETTRICA

For conductivity measurements, at least one test shall be carried out for surface areas up to 10m<sup>2</sup>, 10-20 tests for surface areas between 10 and 100m<sup>2</sup> and at least 10 tests per 100m<sup>2</sup> for larger surface areas. Measurements must be taken at points at least half a metre apart.

If a measurement does not meet the prescribed parameters, repeat it at a point approx. 30 cm apart. If the new value is OK, the area is considered acceptable.

## CURING TIME

The curing time of a layer of APSELIV AS is influenced by the ambient temperature. Please refer to the table below for drying and curing times (at 20°C).

Pot-life	35 minutes
Setting time	60 minutes
Walkability	24 hours
Heavy carriageability	2-3 days
Complete hardening	7 days

## WARNINGS

- Do not apply APSELIV AS to dusty or crumbling substrates;
- Do not apply APSELIV AS to substrates soiled by oils, grease, etc;
- Do not apply APSELIV AS on substrates not properly prepared and not treated with APSEPRIMER AS;
- Do not expose the mixed product to sources of heat;
- Do not apply APSELIV AS on damp substrates or those subject to capillary rising damp;
- Do not dilute APSELIV AS with solvents;
- Do not apply APSELIV AS outdoors.

## CLEANING OF TOOLS

Equipment used for the preparation and application of APSELIV AS must be cleaned immediately after use with the epoxy solvent DILUEPOX or denatured alcohol; after hardening of the product, removal may only be carried out mechanically.

## HEALTH AND SAFETY

For information on safety regulations, hazard statements and precautionary advice, please refer to the latest safety data sheet, which can be obtained from: [laboratorio@apsebg.it](mailto:laboratorio@apsebg.it)

## STORAGE

Shelf life more than 12 months if stored in original packaging, in a dry place and free of moisture. Store at temperatures between +5°C and +30°C. Heat plastic containers in a bain-marie if frost or crystals form.

## DISPOSAL

Dispose of contents and/or container in accordance with local regulations.



## PRODUCT TECHNICAL DATA

### PHYSICAL CHARACTERISTICS (at +20°C)

FEATURE	STANDARD	RESULT	
		COMP. A	COMP. B
Appearance	-	Liquid	Liquid
Colour	-	Colored	Transparent
Specific weight	EN ISO 2811-1	1,45 g/cm <sup>3</sup>	1,00 g/cm <sup>3</sup>
Viscosity	EN 8490	2150 cps	300 cps

### PHYSICAL CHARACTERISTICS OF THE MIXTURE (at +20°C)

FEATURE	STANDARD	RESULT
Colour	-	Limited to certain colours
Mixture consistency	-	Fluid
Specific gravity of mixture (A+B)	EN ISO 2811-1	1,35 g/cm <sup>3</sup>

### PRODUCT PERFORMANCE ACCORDING TO UNI EN 13813

CHARACTERISTIC	STANDARD	RESULT
TABER abrasion resistance after 7 days	EN ISO 5470-1	≥ 55 mg
(grinding wheel H22, 1000g, 1000 rpm)	EN 13892-4	≥ 10 µm
BCA wear resistance	EN ISO 6272	≥ 20 N.m
Impact resistance	EN 13892-8	≥ 2,5 N/mm <sup>2</sup>
Bond strength	EN 13501-1	F <sub>fl</sub>

### PRODUCT PERFORMANCE IN OPERATION

CHARACTERISTIC	STANDARD	RESULT
Operating temperature	-	From -20°C to +80°C
SHORE D hardness at 7 days	DIN 53505	75
Compressive strength at 28 days	EN 196-1	≥ 70 N/mm <sup>2</sup>
Electrical resistivity (Re)	DIN IEC 61340-4-1	10 <sup>4</sup> > Re < 10 <sup>6</sup> Ohm

The above data is information obtained to the best of our technical and application knowledge and research experience. However, since we are unable to intervene directly on site conditions and the execution of works, they represent general indications that do not bind APSE S.r.l. in any way. - V&V Group. The information provided does not relieve the purchaser of his responsibility to personally test our products with regard to their suitability for the intended use. The customer is also responsible for checking that this technical data sheet is valid for the product batch in question and is not outdated as it has been superseded by later editions. If in doubt, please contact our Technical Department in advance. APSE S.r.l. - V&V Group reserves the right to make technical changes of any kind without prior notice. This revision cancels and replaces all previous ones, all under the continuous verification of the data according to the new regulations in force and our ISO 9001 management system. Please check the latest version of this Technical Data Sheet on our website: [www.apse.it](http://www.apse.it)

