APSE®
floor products since 1964

N. 424 - REV. 05/2026

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^2 APSEPRIMER AS
Copper strips according to pavement geometry.
0,8-1,00 kg/m^2 APSEPRIMER AS
2.5 kg/m^2 APSELIV AS

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.

ISO 9001 certiW CERTIFIED

CE EN 13813

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 a continuous area of APSELIV AS of approximately 80 m².
However, their layout and number depend on the conditions and geometry of the site and must be determined on a case-by-case basis by qualified technical staff.

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JOINTS

Control joints, where necessary, must also be incorporated into the resin coating, electrically connecting the two sections separated by the joint using a suitable copper strip approximately 1 m in length; the copper strip must fit into the dovetail joint and must adhere to the adjacent surface, perpendicular to the joint itself, for approximately 50 cm on each side. This operation must be carried out before grouting the joints for the subsequent coating. When, once the coating is complete, the joints are re-cut to match the existing ones, particular care must be taken to ensure that the cutter blade does not sever the copper strip. For added safety, it is advisable to chamfer the joint section where the connection is to be made by a few centimetres in a dovetail shape, so as to keep the V-shaped copper strip more open.
Expansion joints, construction joints and all dynamic joints must be strictly adhered to and also marked on the cladding. The joints must subsequently be sealed with APSEGOM 40

APPLICATION OF THE CONDUCTIVE LAYER

The conductive layer consists of APSEPRIMER AS primer, to be applied by roller in a single coat, at a consumption rate of approximately 80–100 g/m² over the entire surface, covering the conductive units. APSEPRIMER AS must only be applied over the previous primer once it is completely dry and cured. Otherwise, the conductivity of the APSEPRIMER AS primer may be compromised.
On the fresh primer, apply a dusting of conductive aggregates (silicon carbide), at a rate of approximately 1.5 kg/m². Remove any excess aggregate after drying. Once APSEPRIMER AS has cured, it is advisable to check the surface conductivity before applying the self-levelling coating. For further details, please refer to the Technical Data Sheet for 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.

MEASUREMENT OF ELECTRICAL CONDUCTIVITY

For conductivity measurements, at least one test must be carried out for surface areas up to 10 m², 10–20 tests for areas between 10 and 100 m², and at least 10 tests per 100 m² for larger areas.
Measurements must be taken at points at least half a metre apart.
If a measurement does not meet the specified parameters, repeat it at a point approximately 30 cm away.
If the new value is acceptable, the area is to be considered acceptable.
Measurement values can be significantly influenced by environmental conditions, the type of instrument, the personnel carrying out the measurements or actively participating in the tests, etc. It is advisable to carry out preliminary sampling for acceptance and to establish the testing and instrumental verification methods in advance.

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

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WARNINGS

- The temperature of the substrate and the uncured product must be at least 3°C above the dew point to reduce the risk of condensation or whitening on the finish;
- Low temperatures and high humidity levels increase the likelihood of whitening;
- 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: ufficiotecnico@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.

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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^3	1,00 g/cm^3
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^3

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^2
Bond strength	EN 13501-1	F_{fl}

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^2
Electrical resistivity (Re)	DIN IEC 61340-4-1	10^4 > Re < 10^6 Ohm