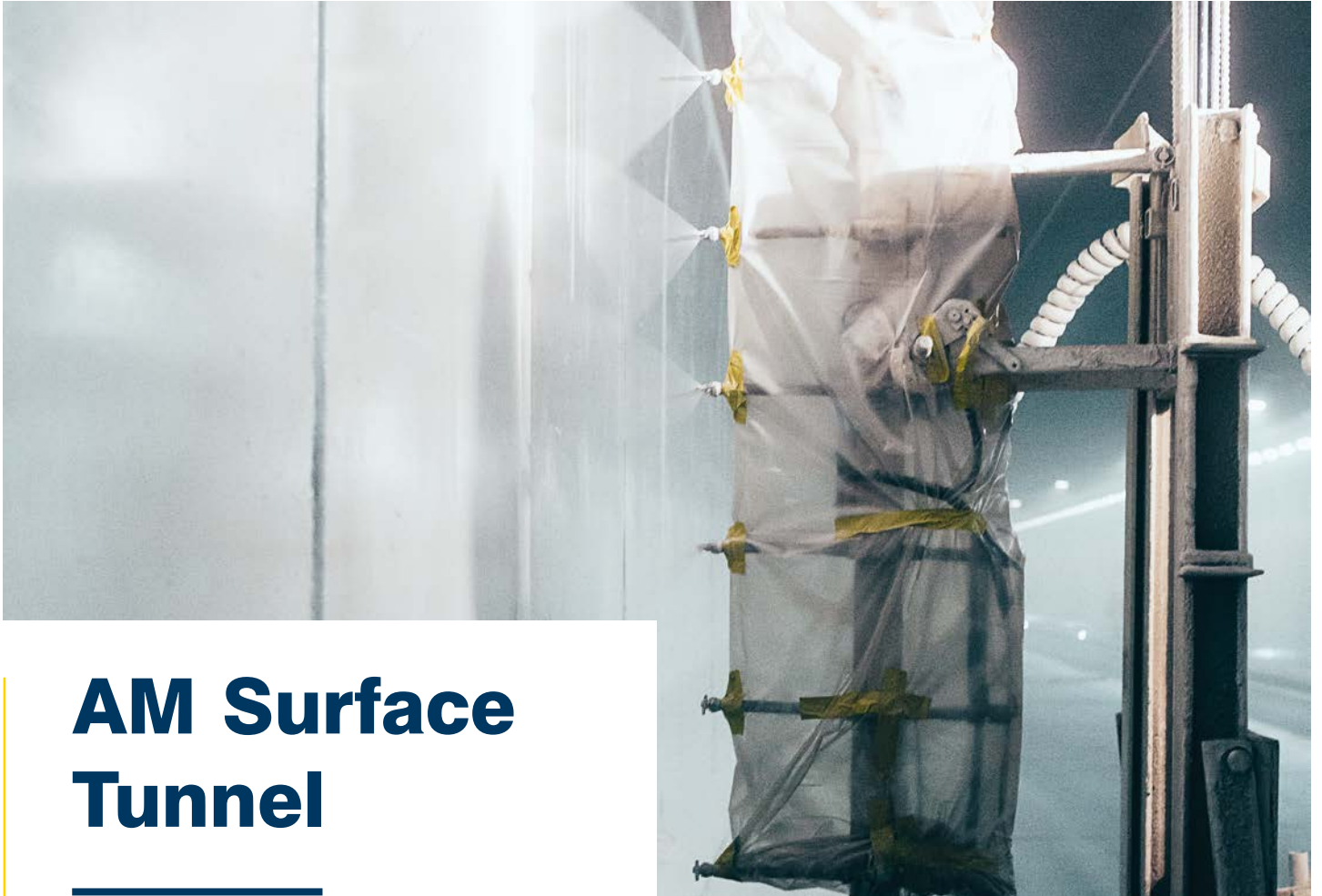




AM Surface



AM Surface Tunnel

Nanostructured dual-component protective coating for highly stressed concrete surfaces in tunnels. Optimal cleansing properties.



Can be processed in a single work step



Applied as single coat



High resistance



Ideal on concrete and other cement-bound surfaces, plus old coats



Simple cleaning in a single work step without the need for chemicals



Properties

Permanent nanoscale protective coating – without nanoparticles

- Low solvent levels (very high solid)
- Excellent adhesive strength, including on old coats (must be tested in some cases)
- Also good adhesive strength on damp surfaces
- Stable colour and gloss
- UV-resistant and weather-resistant
- Excellent resistance against frost, de-icing salts and chemicals
- High mechanical resistance
- High resistance against water absorption



Colours

- RAL 9010 Pure white, silky gloss
- RAL 2004 Pure orange, silky gloss
- RAL 6029 Mint green, silky gloss

Applies to Switzerland, abroad available on request.
Other colours on prior agreement



Application

AM Surface Tunnel protects all highly stressed concrete surfaces, including in outdoor areas and exposed locations thanks to UV resistance. With graffiti protection on concrete surfaces

- Road tunnels
- Rail tunnels
- Engineering structures
- Underpasses
- Underground car parks
- Military structures
- Concrete walls
- Exposed concrete surfaces
- Concrete façades



Cleaning

- With water and brush only
- No chemicals or cleaning agents
- In a single work step



Processing

AM Surface Tunnel can usually be applied in a single coat without the need for priming.

- Simple application using roller or airless spray gun
- In a single work step
- Average coat thickness 120 – 150µm
- Without priming, additional protective coating or post-processing
- Can also be processed at high humidities of up to 95% and at temperatures of just above freezing (+3° C)

Preparation of substrate

Depends on the material to be coated. In all cases, the surface must be clean and free of grease, and must be stable. Filling work and priming are not usually necessary.

Processing

- Ambient temperature: 3 to 30° C
- Maximum humidity: 95%
- **Mixing ratio:**
component A/ component B = 6/1 (by weight)
- Can be diluted with alcohol, ketones and glycol ethers (butyl acetate), maximum dilution 10%
- Pot life: approx. 4 hours
- Stir component A with an electric mixer.
Add component B in the correct ratio and mix at low speed for several minutes
- Apply the coating with a brush, roller or spray gun with an average coat thickness of 120 to 150 µm
- Material pressure when using airless spray gun: approx. 200 to 250 bar
- Material temperature when using airless spray gun: 20 to 30° C
- Clean the equipment with solvent

Drying

- Drying at room temperature
- Drying time at 20° C: dust-dry in approx. 2 hours, completely dry in approx. 24 hours, completely hardened (cross-linked) after 7 days

Technical data

Bonding agent base	Mixture based on various epoxy resin and silane compounds
Solid volume	> 95% (very high solid)
Average coat thickness	120–150 µm, depending on substrate properties
Yield	3–5 m ² /kg at 150 µm dry coat thickness. Actual consumption depends on surface roughness and application method.
Gloss grade	Silky gloss
Thermal resistance	–20°C bis +150°C
Delivery	Ready for coating (thixotropic)



Certification and assessments

Certified according to EN 1504-2: Products and systems for the protection and repair of concrete structures

Coating (C) with increased impermeability
Protection against penetration by substances (1.3)



Diverse system tests made at the following institutes:

- LPM AG, Beinwil am See
- MPA Dresden GmbH
- MFPA Leipzig GmbH
- VSH VersuchsStollen Hagerbach AG, Flums
- ILF Magdeburg GmbH
- Federal Institute of Metrology METAS, Bern-Wabern
- BBL Basler Baulabor AG, MuttENZ, in cooperation with the Federal Roads Office FEDRO, Bern

System certification can be viewed when required.



Form of delivery

Container with components A (base) and B (hardener)

- 24 kg A and 4 kg B, prefilled
- 156 kg A and 26 kg B, prefilled

Other container sizes available on request



Storage

At least 12 months in dry, cool surroundings in sealed original containers. Protect against moisture and frost



Supplier

Please get in touch: info@am-surface.ch

Declaration of performance – AM Surface Tunnel

According to Appendix III of Regulation (EU) no. 305/2011, amended by delegated Regulation (EU) no. 574/2014

Unique ID code of the product type:
AM-Tunnel2K

Intended use(s)

Product for surface protection – coating
Protection against penetration by substances (1.3)

Manufacturer

AM Surface AG
Spissenstrasse 72
CH-6045 Meggen

System(s) for assessing and verifying the constancy of performance

- System 2+ (for uses inside buildings and civil engineering structures)
- System 3 (for uses subject to regulations on reaction to fire)

Harmonised standard

EN 1504-2:2004

Notified body/bodies

Qualitätsgemeinschaft Deutsche Bauchemie, 0921
Reaction to fire: MPA Dresden GmbH, 0767

Declared performance(s)

Essential features	Performance	System for assessing and verifying the constancy of performance	Harmonised technical specification
Linear shrinkage	NPD		
Coefficient of thermal expansion	NPD		
Cross-cut test	≤ GT 2		
CO2 permeability	$s_D > 50$ m		
Water vapour permeability	Class I		
Capillary water absorption and water permeability	$w < 0,1 \text{ kg/m}^2 \times \text{h}^{0,5}$	System 2+	
Tolerance to temperature change	$\geq 1,0 (0,7)^2 \text{ N/mm}^2$		
Resistance against thermal shock	NPD		EN 1504-2:2004
Resistance against chemicals	NPD		
Crack-bridging capability	NPD		
Pull-off test for assessing adhesive strength	$\geq 1,0 (0,7)^2 \text{ N/mm}^2$		
Reaction to fire	Class E	System3	
Grip	NPD		
Artificial weathering	No visible faults		
Anti-static behaviour	NPD	System 2+	
Adhesive strength on wet concrete	NPD		
Hazardous materials	NPD		

²⁾ The value in brackets is the smallest permissible value per reading



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