

ALSAN TRAFIK HP 500 ZERO

TECHNICAL DATA SHEET APTDS-E-08-01

DESCRIPTION

ALSAN TRAFIK HP 500 ZERO is a two-component polyurethane membrane system, volatile organic compounds (VOC) free, low-odour and 100 % solids. This system is composed of:

ALSAN TRAFIK HP 515 is a two-component polyurethane resin used as a primer on concrete.

ALSAN TRAFIK EP 110 is a two-component epoxy primer and vapour barrier, used as primer and vapour barrier on slab on grade. (see details on the product data sheet).

ALSAN TRAFIK HP 525 is a two-component moisture cure polyurethane resin used as waterproofing membrane.

ALSAN TRAFIK HP 535 is a two-component polyurethane resin, used as wearing course. It is installed in one or more layers depending on the traffic intensity. It is also used as a finish coat.

ALSAN TRAFIK HP 535 COLOUR BASE is a two-component polyurethane resin, used as a finish coat when a colourant is added. *ALSAN TRAFIK HP 500 ZERO system is approved by Canadian Food Inspection Agency.

SURFACE PREPARATION

1. Concrete must be fully cured (28 days) with a minimum hardness of 24 MPa (3500 psi). Surface needs to be sound, clean and free of dust or debris.
2. Concrete surface must be prepared to obtain concrete surface profile (ICRI CSP) of 2, 3 or 4. To obtain such a profile, the use of special equipment such as shot blasting is recommended.
3. Concrete substrate should have a maximum internal moisture content of 75 % RH (ASTM F2170) and 1.5 kg/100 m²/24 h (ASTM F1869) and be prepared as required to provide proper adhesion of the membrane system to the substrate with a minimum bond strength of 1.4 MPa (200 psi) as per CAN/CSA-A23.1-04/A23.2-04 section 6B.
4. Cracks of more than 1.6 mm (1/16 in) width need to be repaired with **ALSAN ACTIF**.
5. All upstands (walls, columns, etc) must also be prepared with **ALSAN ACTIF** (see detail TRAFIKZERO-03 on our website).
6. When needed, concrete repair must be done with a mix of **ALSAN TRAFIK EP 110** and silica fume or with appropriate products.

APPLICATION

1. Surface will be primed with **ALSAN TRAFIK HP 515** using a roller or a squeegee. **ALSAN TRAFIK EP 110** primer can also be used. Remove the lid, remove the plastic insert (part B premixed for 2-3 minutes) and pour the entire content into part A. Then, the two parts are mixed thoroughly for at least 2 to 3 minutes for an homogeneous consistency. Pot life after mixing is 15-20 minutes at 25 °C (77 °F). It must be dry and tack free before applying **ALSAN TRAFIK HP 525** (maximum recoat window: 36 h).
2. Once primer **ALSAN TRAFIK HP 515** or **ALSAN TRAFIK EP 110** is completely dry, apply **ALSAN TRAFIK HP 525** with a 6 mm (3/16 in) notched squeegee. Remove the lid, remove plastic insert (part A) and pour the entire content into part B. Then, the two parts are mixed thoroughly for at least 2 to 3 minutes for an homogeneous consistency. Back roll the surface to level.
3. Once **ALSAN TRAFIK HP 525** is completely dry, apply **ALSAN TRAFIK HP 535** (maximum recoat window: 36 h) with a roller. Remove the lid, remove the plastic insert (part B premixed for 2-3 minutes) and pour the entire content into part A. Then, the two parts are mixed thoroughly for at least 2 to 3 minutes for an homogeneous consistency. Pot life after mixing is 15 minutes at 25 °C (77 °F). Spread aggregates to create a non-slip surface while the resin is still wet, use a roller to fully encapsulate the aggregates in **ALSAN TRAFIK HP 535**. In ramps, spread aggregates at refusal in the first layer and remove excess after curing before installing second layer of **ALSAN TRAFIK HP 535** (heavy traffic). In the second layer, broadcast aggregates. Second layer coverage rate of **ALSAN TRAFIK HP 535** would be reduced at least by half. **ALSAN TRAFIK HP 535 COLOUR BASE** can be coloured with **ALSAN TRAFIK HP COLORANT** (see product technical data sheet). Traffic is allowed 72 hours after the installation of **ALSAN TRAFIK HP 535**.

Note: For proper curing, minimum application temperature is 5°C (41°F) and it must be maintained for the length of curing process. The above drying times are for ideal application conditions 20°C (68°F) and 50% relative humidity. Drying time are longer at lower temperatures and/or lower relative humidity.

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PACKAGING

Specifications	PRIMER: ALSAN TRAFIK HP 515	MEMBRANE: ALSAN TRAFIK HP 525	WEAR + FINISH COAT: ALSAN TRAFIK HP 535
Physical state	Liquid	Self-levelling liquid	Self-levelling liquid
Colour	Part A: Clear Part B: Brownish	Part A: Amber Part B: Grey	Part A: Grey, dark grey Part B: Yellowish
Specific gravity @ 25 °C	Part A: 0.95 kg/L Part B: 1.22 kg/L	Part A: 1.06 kg/L Part B: 1.28 kg/L	Part A: 1.19 kg/L Part B: 1.09 kg/L
Packaging	Part A: 4.1L Part B: 3L	Part A: 2.0L Part B: 14.9L	Part A: 5.6L Part B: 3.0L
Coverage	Mix: 56 m ² (600 ft ²)* Wet Im thickness of 127 µm (5 mils) 7.9 m ² / L (320 ft ² / gal)	Mix: 34 m ² (365 ft ²) Wet Im thickness of 508 µm (20 mils) 2.0 m ² / L (80 ft ² / gal)	Mix: 24 m ² (260 ft ²) Ramps 2nd coat 12 m ² (180 ft ²) Wet Im thickness of 355 µm (14 mils) 2.8 m ² / L (115 ft ² / gal)

* Primer (515) coverage may vary from 37 m² to 56 m² (400 ft² to 600 ft²) depending of concrete porosity.
Note: All coverage rates are approximate and may vary due to the application technique and surface roughness.

PROPERTIES

PROPERTIES	Standards	PRIMER: ALSAN TRAFIK HP 515	MEMBRANE: ALSAN TRAFIK HP 525	WEAR COAT : ALSAN TRAFIK HP 535
Brook eld viscosity @ 25 °C	-	Part A: 250 cP Part B: 125 cP	Part A: 20 cP Part B: 7200 cP	Part A: 2200 cP Part B: 900 cP
Solids by weight	-	> 90 %	100 %	100 %
Ultimate elongation	ASTM D412	-	> 500 %	> 100 %
Tensile strength	ASTM D412	-	> 4.0 MPa	> 10 MPa
Bond strength	CAN/CSA-A23.1-04/ A23.2-04 Section 6B	3 MPa	> 1.4 MPa	> 1.4 MPa
Hardness (Shore A)	ASTM D2240	-	-	95
Pot life @ 20 °C	-	50 min	-	50 min
Fully cured @ 20 °C	-	2-3 h	50% RH ; 5-6 h 30% RH ; 10 h 22% RH ; > 35h	2-3 h

(All values are nominal)

CLEANING

Tools can be cleaned with petroleum solvents (mineral spirits, Varsol, Xylene, etc.).

STORAGE & HANDLING

Shelf life: 18 months when properly stored in original unopened containers. **ALSAN TRAFIK HP 515** product is amammable. Store in a cool and dry area. Use in a well ventilated area, far from any open flame. Avoid breathing solvent vapours and prolonged skin contact. For more information, refer to instruction on the label of the can and to relevant Material Safety Data Sheet (MSDS).