

# VEHICULAR SYSTEMS

## ALSAN® Trafik PU 215/420/421

ALSAN Trafik PU 215/420/421 polyurethane deck coating systems consist of a primer, a multi-component water cured polyurethane base coat, two-component aromatic intermediate coat and a two-component aliphatic top coat to speed up the application process and finish projects sooner. These systems are used to protect concrete substrates designed for concrete parking decks with vehicular traffic.

For vehicular traffic deck coating systems that accommodate a shorter schedule with faster curing components please reference our application instructions for rapid set ALSAN Trafik RS 276/730/233/279.

### HEALTH & SAFETY

The contractor shall ensure compliance with OSHA, EPA and other local governing and disposal authorities for project-related safety and environmental requirements. Prior to application, persons handling or applying ALSAN Trafik PU coatings should familiarize themselves with the applicable Product Data Sheets (PDS), Safety Data Sheets (SDS), specifications, and application instructions. Refer to product SDS for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with specified exposure limits where required. The applicator is responsible for ensuring conditions are appropriate to proceed and proper application methods are followed.

When applying ALSAN Trafik PU Coatings typical exposure levels will be below OSHA permissible limits for most outdoor applications. When required, air monitoring should be performed by a qualified person to identify any hazards. If respiratory protection is required, use a NIOSH approved air-purifying respirator.



# APPLICATION GUIDELINES

### STORAGE & HANDLING

Containers should be left unopened until ready for use. Store material above 60°F (16°C) but less than 95°F (35°C) for optimum shelf life. Storage outside of the recommended guidelines for extended time could affect the performance of the material. Store away from any sparks or open flames.

### ENVIRONMENTAL CONDITIONS

Environmental conditions such as temperature, dew point, humidity, precipitation, sun, cloud cover, wind, and shade will affect application and cure rate of ALSAN Trafik PU components. Monitor and confirm all environmental conditions are satisfactory to begin work and remain so during installation of the specified components and materials.

- Do not apply ALSAN Trafik PU components if precipitation is anticipated 24hrs before or after installation.
- Do not apply ALSAN Trafik PU components during fog, dew, frost, with 90% relative humidity (RH) or above, or with chance of condensation.
- Generally, application may proceed when ambient and surface temperature is minimum 40°F (10°C) and rising providing the substrate is a minimum of 5°F (3°C) above the dew point temperature, and the substrate is clean and dry.

### MOCKUP

Mockup should be installed as a guide for quality control and be approved by an authorized owner's representative for fit for use, such as slip resistance, aesthetics, and functionality.

## EQUIPMENT LIST

- 3/8" nap rollers of varying length - 4", 9" or 18"
- Properly sized notched squeegee
- Extension handles
- Gloves
- Safety glasses
- Jiffy mixer paddle
- Power drill capable low speed mixing (250 - 500rpm)
- Spiked shoes
- Blower and/or brooms

## MIXING

ALSAN Trafik PU 215 base coat is mixed with water and 0 to 4 premeasured accelerator vials. The number of vials used allows the applicator to control curing in the field. Mix the water and accelerator into base coat using a jiffy mixer at low speed (250-500 rpm) and until the water disappears completely (2-3 minutes).

ALSAN Trafik PU 420 and 421 are part A and part B top coats that are mixed together at time of application and mixing components using a jiffy mixer at low speed (250-500 rpm) for 2-3 minutes making sure to mix from the bottom to the top of the pail for a homogeneous mixture.

## SUBSTRATE PREPARATION

All substrates must be clean, dry and free from gross irregularities, loose, unsound or foreign material such as dirt, ice, snow, water, grease, oil, release agents, lacquers, or any other condition that would be detrimental to adhesion of primer or resin materials to the substrate. Most surfaces will require mechanical abrasion in the form of scarifying, shot blasting, or grinding to achieve a suitable substrate.

Inspect all substrates, and correct defects before application of waterproofing materials.

Concrete shall be fully cured and a minimum of 3500 psi prior to application with a moisture of 4.5% or less. Moisture can be measured with a non-destructive moisture meter. Shot blast, scarify, or grind to ICRI Concrete Surface Profile CSP 3 to CSP 5; CSP 3 being the preferred profile.

Metal substrates shall be prepared to near-white metal in accordance with SSPC - SP3 (power tool clean) to a maximum 1/8" (3mm) beyond the termination of the ALSAN Trafik membrane. Immediately prime cleaned surface with ALSAN Trafik EP 141.

## AGGREGATES

Use clean and dry silica sand of 16-30 or 12-20 mesh, or 24 mesh silicon carbide or aluminum oxide depending on the system need.

## DETAILING

**1.** Cracks less than 1/16" wide shall be pretreated prior to placement of ALSAN Trafik PU coatings. Apply a coat of specified primer by roller at 5 mil, 4" beyond crack to each side and allow to dry to thumb print tacky. Proceed by applying detail coat of properly mixed base coat at 25 mils a minimum of 4" to each side of the crack. Allow detail coat to cure a minimum of 2 hours.

**2.** Cracks greater than 1/16" wide or greater shall be routed to min. 1/4" wide X 1/2" deep, cleaned and dried, install backer rod to allow for a 1/4" depth of sealant. Sealed with Soprema approved joint sealant. Allow sealant to cure overnight. Apply primer 4" beyond joint to each side and allow to dry to thumb print tacky.

### DETAILING

Proceed by applying detail coat of properly mixed base coat at 25 mils a minimum of 4" to each side of the crack. Allow detail coat to cure a minimum of 2 hours.

**3.** When terminating coatings up a vertical surface install a 45° cove bead of Soprema approved sealant a minimum of 1/2" onto both surfaces and allow the sealant to cure overnight. For a clean finish install tape 4" above the surface on the vertical prior to coating application and then remove immediately after coating is applied. Apply primer 4" onto the vertical and horizontal and allow to dry to thumb print tacky. Apply detail coating at 25 mils over the cove bead 4" onto the vertical and 4" onto the horizontal. Allow detail coat to cure a minimum of 2 hours.

**4.** Penetrations such as pipes through the deck shall be rigidly fastened on both sides of the deck whenever possible. Seal the penetration with a Soprema approved sealant creating a cove bead around the base of the pipe with a minimum of 1/2" onto the penetration and the deck. Allow sealant to cure overnight. For a clean finish install tape to the penetration 4" above the surface prior to coating application and then remove immediately after coating is applied. Apply primer 4" onto the penetration and horizontal, allow to dry to thumb print tacky. Apply detail coating at 25 mils over the cove bead 4" onto the vertical and 4" onto the horizontal. Allow detail coat to cure a minimum of 2 hours.

**5.** Drains shall be operational and recessed with the deck sloped to drain. Drains to be detailed with a Soprema approved sealant creating a seal between the deck and the drain. Block drain and turn deck coating system down into the drain.

### PARKING STALLS APPLICATION RATES- ALSAN TRAFIK PU 215/421

Primer ALSAN Trafik EP 140 or 141	5 mils (300 ft <sup>2</sup> /gal)
Base coat ALSAN Trafik PU 215	25 mils (64 ft <sup>2</sup> /gal)
Top coat ALSAN Trafik PU 421	15 mils (105ft <sup>2</sup> /gal)
Total system thickness (excluding primer)	40 mils

- Apply 5 wet mils of specified primer using notched squeegee or roller. Follow mixing instructions accordingly. Allow to cure to thumbprint tacky.
- Mix ALSAN Trafik PU 215 base coat:
  - Thoroughly stir the pail from bottom to top.
  - Pour into a 7gal pail and add 5 quarts of water.
  - Add 0 to 4 ALSAN Trafik PU 215 accelerator vials to the pail. The number of vials used allows the applicator to control curing in the field.
  - Mix water and catalyst into base coat until the water disappears completely (2-3 minutes).
- After primer is dry to the touch, proceed to apply ALSAN Trafik PU 215 with a properly sized notched squeegee over the entire deck at 25 wet mils and back roll with pre-saturated 3/8" nap roller in the opposite direction of squeegee.
- When base coat is thumbprint tacky in approximately 30 minutes, apply specified clean dry 16-30 silica sand to refusal (approximately 30-50 lbs./100SF). The sand should rest on top and not sink into the coating. Allow base coat to cure to the point where it is walkable before proceeding, usually 2-4 hours.
- Apply 15 mils of ALSAN Trafik PU 421 top coat using a properly sized squeegee to encapsulate previously applied aggregate and taking care that the finished surface has acceptable slip resistance. If needed, 16-30 silica sand can be back rolled into the top coat at approximately 3-5 lbs./100SF.
- Extend deck coating up vertical surfaces a minimum of 4".
- Allow a minimum of 24 hours for the finished system to cure prior to opening to vehicular traffic.



### DRIVE LANES APPLICATION RATERS - RATE ALSAN TRAFIK PU 215/420/421

Primer ALSAN Trafik EP 140 or 141	5 mils (300 ft <sup>2</sup> /gal)
Base coat ALSAN Trafik PU 215	25 mils (64 ft <sup>2</sup> /gal)
Top coat ALSAN Trafik PU 420	15 mils (105 ft <sup>2</sup> /gal)
Top coat ALSAN Trafik PU 421	15 mils (105ft <sup>2</sup> /gal)
Total system thickness (excluding primer)	55 mils

1. Apply 5 wet mils of specified primer using notched squeegee or roller. Follow mixing instructions accordingly. Allow to cure to thumbprint tacky.
2. Mix ALSAN Trafik PU 215 base coat:
  - a. Thoroughly stir the pail from bottom to top.
  - b. Pour into a 7gal pail and add 5 quarts of water.
  - c. Add 0 to 4 ALSAN Trafik PU 215 accelerator vials to the pail. The number of vials used allows the applicator to control curing in the field.
  - d. Mix water and catalyst into base coat until the water disappears completely (2-3 minutes).
3. After primer is dry to the touch, proceed to apply ALSAN Trafik PU 215 with a properly sized notched squeegee over the entire deck at 25 wet mils and back roll with pre-saturated 3/8" nap roller in the opposite direction of squeegee.
4. When base coat is thumbprint tacky in approximately 30 minutes, apply specified clean dry silica sand to refusal when the wet base coat becomes firm enough to not allow the sand to sink. Allow the base coat to continue to cure to the point where it is walkable before proceeding. Usually 2-4 hours.
4. Remove all loose sand.

6. Apply 15 mils of ALSAN Trafik PU 420 intermediate coat using a properly sized squeegee and broadcast specified clean, dry 16-30 silica sand at 10-15 lbs./100SF into the wet top coat and back roll to encapsulate the sand. Allow to cure for 2-4 hours.

7. Apply another 15 mils of ALSAN Trafik PU 421 top coat using a properly sized squeegee and broadcast specified clean, dry 16-30 silica sand at 3-5 lbs./100SF into the wet top coat and back roll to encapsulate the sand and create slip resistance.

8. Extend deck coating up vertical surfaces a minimum of 4".

9. Allow a minimum of 24 hours for the exposed top coat to cure prior to opening to vehicular traffic.

### CURING

Product cure time will vary depending on temperature. Typical cure time is 2 to 4 hours for water/accelerator catalyzed products. Do not apply subsequent coats until previous coat has cured. For these multi component and 2 component systems, allow a minimum of 24 hour cure time of the finished system prior to opening to vehicular traffic.

### CLEANUP

Before material cures, clean all tools and equipment with xylene or similar solvent. Cured material will need to be mechanically cut or abraded. Clean skin with warm soapy water and a medium bristled brush as needed.