

ALSAN RS Finish & Surfacing Application Guide

ALSAN RS Finish & Surfacing

ALSAN RS Finish and surfacing can be used with various interior and exterior waterproofing, traffic surfacing and roofing applications. ALSAN RS Finishes are applied using a trowel, squeegee or roller depending on the ALSAN RS component used and required surfacing. ALSAN RS components available for finish and surfacing are:

- ALSAN RS 287 Finish
- ALSAN RS 281 Clear Finish
- ALSAN RS 289 Textured Base
- ALSAN RS Textured Coating
- ALSAN RS Quartz Aggregate
- ALSAN RS Acrylic Chips

The above products may be used alone or in combination. Refer to SOPREMA ALSAN RS specifications for information regarding specific system requirements.

ALSAN RS Finish & Surfacing General Application

ALSAN RS Finish and surfacing may be applied to dry, dust free and clean fully cured ALSAN RS Primer, membrane or mortar layers. When applying ALSAN RS Finish or surfacing over an ALSAN RS waterproofing membrane, the in-place membrane should be inspected for deficiencies and corrected prior to application of any finish or surfacing component. This is especially important with regards to correcting blister or delamination that may be present in any reinforced ALSAN RS membrane.

Where ALSAN RS Finish or surfacing will be applied over ALSAN RS reinforced flashings or membrane, edges and laps should be pretreated with ALSAN RS Self-Leveling Mortar for traffic applications or ALSAN RS Paste or mortar for waterproofing applications, applied in spackle fashion to smooth the transition over these locations. If not pre-treated as indicated, lap line and fleece edges may telegraph through the ALSAN RS Finish or surfacing.

NOTE: Imperfections telegraph through surfacing & finish, and therefore must be corrected before proceeding. Minor imperfections in ALSAN RS Self-Leveling Mortar or ALSAN RS membrane can be ground down before applying surfacing or finish. Using care with a diamond cup wheel hand held grinder, lightly grind the top surface of any imperfections using care not to damage the in-place membrane. If the membrane has been damaged or compromised, repair the membrane as needed and feather edges by grinding.

Using Color Breaks

ALSAN RS finish and surfacing are designed as topcoats for roofing, waterproofing and traffic surfacing systems. Although ALSAN RS waterproofing and surfacing systems are often used for balconies, terraces, parking structures and more, the primary function of any ALSAN RS system is waterproofing.

Since all ALSAN RS components are rapid-setting, the way finishes and surfacing are applied will have a dramatic impact on aesthetics of the completed application. Applying ALSAN RS Finishes and surfacing with color breaks provides several benefits to the appearance and repair-ability of any ALSAN RS project. Color breaks help to:

- Hide variations in surface gloss and texture
- Hide minor variations in color
- Allow for localized repairs if needed

Example of applied Color Breaks:



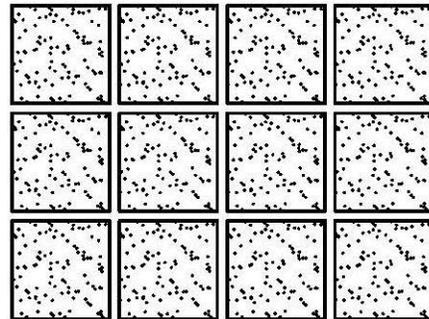
Before starting any project, color breaks should be planned and mapped out by the project designer working with the owner. Things to consider when planning color breaks are:

- What type of pattern is desired
- Locations of doors, windows or other focal points that might be impacted
- Locations of expansion or other moving joints

Once a plan has been approved, the pattern can be masked-off and made ready for application.

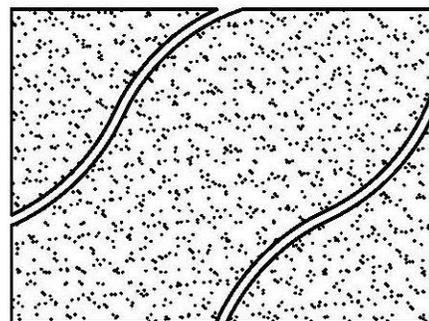
Surfacing or finish may be applied in a variety of patterns, color combinations and textures depending upon the designer's needs and imagination. Generally, color breaks are applied in two patterns as follows:

Linear Pattern Color Breaks:



Linear patterns are the easiest to work with, and can be designed to simulate tile or pavers applied square or at angles.

Non-Linear Pattern Color Breaks:

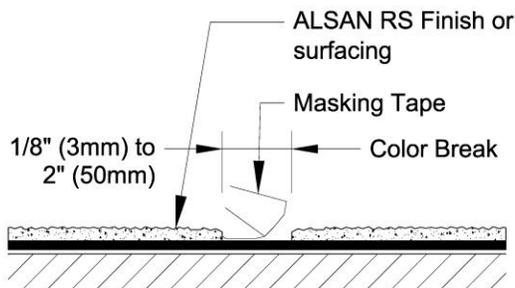


Non-linear patterns can be designed in any shape or configuration. Complex patterns can also be applied with pre-cut templates prepared by third party vendors typically used for commercial paint applications.

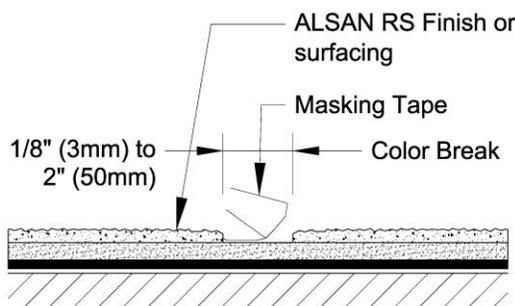
Regardless of style or pattern, the color break must be applied at the appropriate layer of ALSAN RS installation depending upon the system and surfacing type.

Four typical color break locations are as follows:

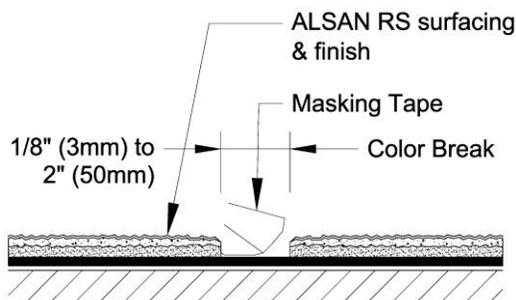
Color Breaks with ALSAN RS Finish or Surfacing applied over ALSAN RS membrane:



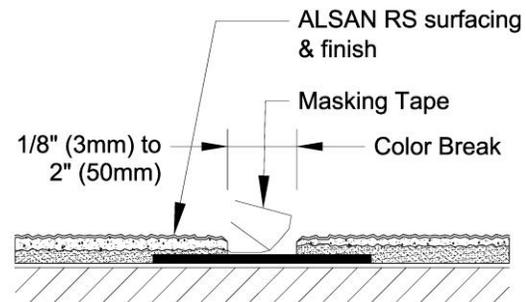
Color Breaks with ALSAN RS Finish or Surfacing applied over ALSAN RS 233/263 Self-Leveling Mortar:



Color Breaks aggregate broadcast directly into ALSAN RS 233/263 Self-Leveling Mortar applied over ALSAN RS membrane:



Color Breaks aggregate broadcast directly into ALSAN RS 233/263 Self-Leveling Mortar applied direct to substrate:



Note: With aggregate broadcast into ALSAN RS 233/263 Mortar applied directly to the substrate, color breaks must be applied over previously applied ALSAN RS Flash membrane strips. This requires additional coordination to layout and install the strips before applying the ALSAN RS 233/263 Self-Leveling Mortar.

ALSAN RS Finish & Surfacing Applied at Perimeters & Expansion Joints

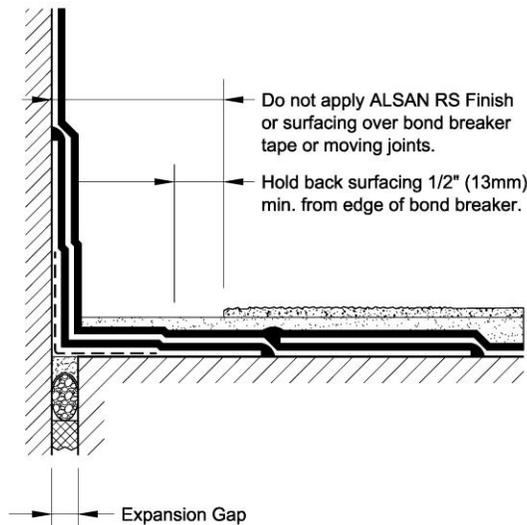
ALSAN RS Finish and surfacing are semi-rigid materials formulated for durability and performance. As semi-rigid components, when applied over softer or more flexible materials such as ALSAN RS waterproofing membranes, cracks and micro fissures may occur in the surfacing and finish layer. Although this does not affect the ALSAN RS system waterproofing or performance, it will impact the cosmetic appearance of the surfacing and finish.

To help reduce or avoid potential cosmetic cracks or fissures, the ALSAN RS surfacing and finish should not be applied over areas of potential movement including the following:

- Hold surfacing & finish back ½ in (13 mm) from horizontal to vertical transitions at walls, penetrations and leading edge of any bond breaker.

- Do not apply surfacing & finish over any metal components stripped in with ALSAN RS membrane.
- Do not apply surfacing & finish over expansion joints or other joints where movement is possible.

ALSAN RS Finish & Surfacing Typical Joint Treatment:



Steep Slope Applications

ALSAN RS 287 Finish, ALSAN RS 281 Clear Finish, ALSAN RS 289 Textured Finish and ALSAN RS Textured Coating resins are produced ready for application at low slopes, but may be applied at any desired slope by adjusting the resin viscosity with ALSAN RS Liquid Thixo.

For vertical substrates or slopes exceeding 1-1/2:12, ALSAN RS Finish resins should be pre-mixed with ALSAN RS Liquid Thixo at up to 2% addition by weight. The amount of thixotropic additive needed will vary by slope and temperature. Addition of ALSAN RS Liquid Thixo should be done following the below guidelines:

Thoroughly mix the entire drum of ALSAN RS Finish resin for 2-3 minutes before each use, and prior to pouring off resin into a second container if batch mixing, using a slow-speed (200 to 400 rpm) mechanical mixer with spiral agitator or stirring stick taking care not to aerate. Add the required amount of ALSAN RS Liquid Thixo into the ALSAN RS Finish resin and mix for 2-3 minutes.

- Test the amount of ALSAN RS Liquid Thixo required by mixing small batches before mixing entire units of product.
- Start adding ALSAN RS Liquid Thixo at 1% addition.
- Resin mixed with ALSAN RS Liquid Thixo must be allowed to stand 20 to 30 minutes before checking viscosity or use. Adjust the amount of ALSAN RS Liquid Thixo needed until the desired viscosity is reached.
- Approximately (1) TBSP = 20g or 2% of ALSAN RS Liquid Thixo per kg of ALSAN RS resin.

Note: Storage and working times are not affected by addition of ALSAN RS Liquid Thixo mixed with uncatalyzed resin.

Applying ALSAN RS 281 Clear & ALSAN RS 287 Color Finish

ALSAN RS Finish is available as ALSAN RS 281 Clear or RS 287 Color Finish Base. ALSAN RS 287 Color Finish Base is a smooth monochromatic color topcoat made by combining ALSAN RS 287 Color Finish Base resin (un-pigmented) with ALSAN RS Color Additive as follows:

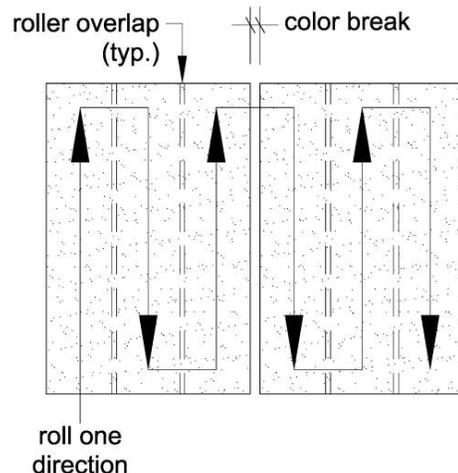
Mix: Thoroughly mix the entire drum of ALSAN RS 287 Color Finish Base resin for 2-3 minutes using a slow-speed (200 to 400 rpm) mechanical mixer with spiral agitator. Slowly add the entire contents of ALSAN RS Color Additive to ALSAN RS 287 Color Finish Base resin component while stirring; continue mixing for 2 to 5 minutes or until achieving a uniform streak-free color. Note: ALSAN RS 281 Clear Finish must be mixed before use, but is not combined with ALSAN RS Color Additive. Remix before each use, and prior to pouring off resin into a second container if batch mixing. Catalyze only the amount of material that can be used within 15-20 minutes. Add pre-measured catalyst to resin component and stir for 2-3 minutes using a slow-speed mechanical agitator or stirring stick. ALSAN RS Catalyst addition is based on weight of the resin component used and temperature. Combining ALSAN RS Color Additive to ALSAN RS 287 Color Finish Base resin does not affect shelf-life or storage.

Apply: Plan and tape-out the area of work in a checkerboard fashion using fiber reinforced masking tape. After mixing, apply ALSAN RS Finish resin to clean, prepared and dry substrate at the required consumption as follows:

Approximate Coverage per 10kg Unit			
Substrate	kg/ft ² (kg/m ²)	ft ² (m ²)	mils (mm)
Smooth	0.05 (0.6)	179 (16.7)	23 (0.58)
#0 Quartz	0.06 (0.7)	154 (14.3)	26 (0.67)
#1 Quartz	0.07 (0.8)	135 (12.5)	30 (0.78)

Application Method	
Smooth surfaces (ALSAN RS primer, ALSAN RS membrane & mortar)	1/8 in steel v-notch trowel or rake
Embedment coat for #0 quartz aggregate:	3/16 in steel v-notch trowel or rake
Sealcoat over quartz aggregate:	Flat blade rubber squeegee
All applications:	ALSAN RS roller

ALSAN RS 281 Clear and ALSAN RS 287 Color Finish should be uniformly spread across substrate with the required steel v-notch rake; using a roller to remove puddles. Finish the topcoat by lightly rolling in one direction slightly overlapping previously rolled sections to create a single uniform application. The same finish roller procedure and direction should be used throughout the entire application to produce the most consistent and uniform sheen possible.



Before ALSAN RS 281 Clear or ALSAN RS 287 Color Finish cures, remove all masking tape.

Cure: Allow ALSAN RS 281 Clear and ALSAN RS 287 Color Finish to fully cure before applying loads or traffic. Changing project conditions should be monitored throughout the day to adjust catalyst ratios and cure time.

Broadcast Aggregate

Approved quartz silica, ceramic granule or mineral surfacing may be applied to ALSAN RS systems as aesthetic and/or slip-resistant surfacing. All surfacing aggregates shall be washed, kiln-dried, dust-free, suitable for broadcast, angular grain, and sized as recommended by SOPREMA. When applying colored quartz, SOPREMA recommends using a blend of three different colored aggregates.

Broadcast ALSAN RS 281 Clear or ALSAN RS 287 Color Finish to excess while wet using:

- #0 (0.4 - 0.8mm) kiln-dried quartz aggregate
- Approximate rate 100 lb/100 ft² (5.0 kg/m²)

Aggregate should be cast upward, allowing it to fall vertically downward into the resin to avoid creating “waves” in the resin.

Where required on vertical surfaces, cast aggregate into the wet resin with a perpendicular hand motion.

Vertical and horizontal surfaces should be cast separately, applying vertical surfaces first followed by deck areas using appropriate protection and masking.



Note: All broadcast aggregate must be properly sealed with ALSAN RS Finish. Prior to applying finish seal coat, remove excess aggregate from surface by broom, vacuum or oil-free blower.

Broadcast ALSAN RS Acrylic Chips

ALSAN RS Acrylic Chips may be applied to ALSAN RS systems as an aesthetic element. When applying ALSAN RS Acrylic Chips, SOPREMA recommends using a blend of two to three different colors.

Broadcast ALSAN RS Acrylic Chips into ALSAN RS 287 Color Finish to excess while wet using a popcorn gun and or hand feeder at:

- Approximate rate 100 lb/100 ft² (5.0 kg/m²)



ALSAN RS Acrylic Chips should be cast upward by hand or with a hopper gun, allowing it to fall vertically downward into the resin. Where required on vertical surfaces, cast aggregate into the wet resin with a

perpendicular hand motion. Vertical and horizontal surfaces should be cast separately, applying vertical surfaces first followed by deck areas using appropriate protection and masking.

Note: Any ALSAN RS Acrylic Chips not fully embedded into ALSAN RS 287 Color Finish can be knocked down using a stiff bristle broom after the resin has cured and prior to applying an ALSAN RS 281 Clear Finish seal coat if used.

Applying ALSAN RS 289 Textured Finish

ALSAN RS 289 Textured Finish is available as an aggregate filled monochromatic color topcoat made by combining ALSAN RS 289 Textured Base resin (un-pigmented) with ALSAN RS Color Additive as follows:

Mix: Thoroughly mix the entire drum of ALSAN RS 289 Textured Base resin for 2-3 minutes using a slow-speed (200 to 400 rpm) mechanical mixer with spiral agitator. Slowly add the entire contents of ALSAN RS Color Additive to ALSAN RS 289 Textured Base resin component while stirring; continue mixing for 2 to 5 minutes or until achieving a uniform streak-free color.

Note: Remix before each use, and prior to pouring off resin into a second container if batch mixing. Catalyze only the amount of material that can be used within 15-20 minutes. Add pre-measured catalyst to resin component and stir for 2-4 minutes using a slow-speed mechanical agitator or stirring stick.

NOTE: ALSAN RS Catalyst addition is based on weight of the resin component used and temperature. Combining ALSAN RS Color Additive to ALSAN RS 289 Textured Base resin does not affect shelf-life or storage.

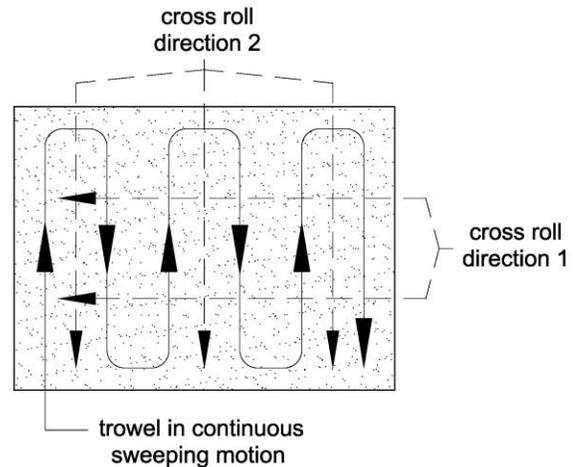
Apply: Plan and tape-out the area of work in a checkerboard fashion using fiber reinforced masking tape. After mixing, apply ALSAN RS 289 Textured Base resin to clean, prepared and dry substrate at the required consumption as follows:

Approximate Coverage per 15kg Unit			
Use	kg/ft ² (kg/m ²)	ft ² (m ²)	mils (mm)
Pedestrian Light Traffic	0.07 (0.8)	202 (18.7)	21 (0.53)
Pedestrian Normal Traffic	0.12 (1.3)	124 (11.5)	35 (0.87)
Vehicular Traffic	0.17 (1.8)	89 (8.3)	48 (1.2)

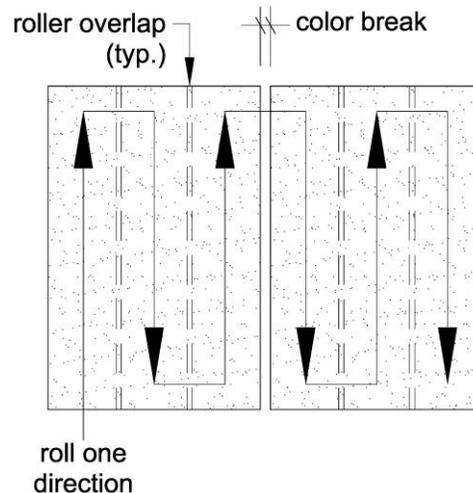
Application Method	
Light Pedestrian Traffic	3/16 in steel v-notch trowel or rake
Normal Pedestrian Traffic	1/4 in steel v-notch trowel or rake
Vehicular Traffic	3/8 in steel v-notch trowel or rake
All Applications:	ALSAN RS roller

ALSAN RS 289 Textured Finish should be uniformly spread across substrate with the required v-notched trowel or squeegee; using a roller to remove puddles and cross rolled two directions to even out coverage. Finish the topcoat by lightly rolling in one direction slightly overlapping previously rolled sections to create a single uniform application. The same finish roller procedure and direction should be used throughout the entire application to produce the most consistent and uniform sheen possible.

Trowel/Squeegee Application:



Finish Rolling:



When required for additional slip resistance, immediately after the final roller passes are completed, random broadcast 0.047 in (1.2 mm) aluminum oxide to the desired degree onto the coating and lightly back roll one final time. Before ALSAN RS 289 Textured Finish cures, remove all masking tape.

Cure: Allow ALSAN RS 289 Textured Finish to fully cure before applying loads or traffic. Changing project conditions should be monitored throughout the day to adjust catalyst ratios and cure time.

Applying ALSAN RS Textured Coating

ALSAN RS Textured Coating is a factory mixed aggregate filled monochromatic color topcoat used primarily with vehicular traffic installations at ramps, turning radii and areas of heavy traffic. ALSAN RS Textured Coating may also be used for roof walkways, qualifying cantilever balconies, walkways and other traffic surfaces.

Mix: Thoroughly mix the entire drum of ALSAN RS Textured Coating resin for 2-3 minutes using a slow-speed mechanical mixer with spiral agitator until achieving a uniform streak-free color. Note: Remix before each use, and prior to pouring off resin into a second container if batch mixing. Catalyze only the amount of material that can be used within 15-20 minutes. Add pre-measured ALSAN RS Catalyst to resin component and stir for 2-4 minutes using a slow-speed mechanical agitator or stirring stick.

NOTE: ALSAN RS Catalyst addition is based on weight of the resin component used and temperature.

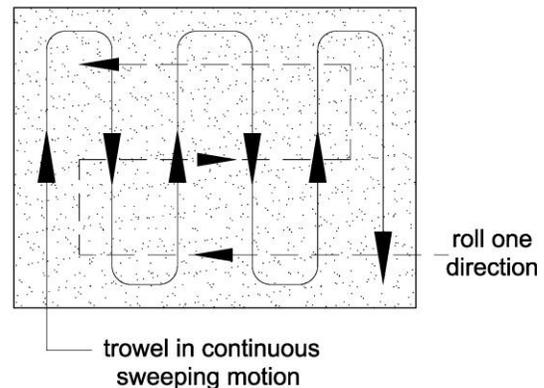
Apply: Plan and tape-out the area of work in a checkerboard fashion using fiber reinforced masking tape. After mixing, apply ALSAN RS Textured Coating resin to clean, prepared and dry substrate at the required consumption as follows:

Approximate Coverage per 15kg Unit			
Use	kg/ft ² (kg/m ²)	ft ² (m ²)	mils (mm)
Standard	0.33 (3.5)	46 (4.3)	76 (1.89)

Application Method	
Standard	Square edge finishing trowel & roller

ALSAN RS Textured Coating should be uniformly spread across substrate with the required steel square edge finishing trowel; using a dry roller to remove trowel marks and imperfections. If required, ALSAN RS Textured Coating may be lightly rolled in one direction slightly overlapping previously rolled sections to create a single uniform application. The same finish roller procedure and direction should be used throughout the entire application to produce the most consistent and uniform sheen possible.

Trowel Application:



Before ALSAN RS Textured Coating cures, remove all masking tape.

Cure: Allow ALSAN RS Textured Coating to fully cure before applying loads or traffic. Changing project conditions should be monitored throughout the day to adjust catalyst ratios and cure time.

Summary

ALSAN RS Finish & Surfacing may be used for a variety of applications including colored or slip-resistant topcoats and traffic surfacing. See SOPREMA ALSAN RS systems and selection guide for assemblies using an appropriate finish and surfacing topcoat.