

## Basecoat SB 3-Stage Application and Repair

Tri-coat or 3-stage colors are base coat / clear coat colors where the color is applied in two phases. An opaque first layer color is followed by a more transparent second color. The third, clear coat segment is then applied to provide gloss and protection to the system. The special techniques required when repairing these types of colors are easy to accomplish following the Lesonal Basecoat SB process.



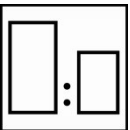
### Safety Considerations

- Use suitable personal protection.
- When exposed to paint or solvents AkzoNobel recommends the use of a fresh air supply respirator



### Suitable Surfaces

- Lesonal primer surfacers, Repair area
  - Existing finishes, Blend area
- Sand with P500 to P600 dry.
  - Sand with P1000 dry or a grey scuff pad.



STICK #9/10

### Lesonal Basecoat SB 3-Stage Color Mixing

- Groundcoat Color
  - 100 parts by volume Basecoat SB Groundcoat color
  - 10 parts by volume Lesonal Clear Hardener
  - Stir together then add –
  - 50 parts by volume Lesonal Reducer
- Midcoat Color
  - 100 parts by volume Basecoat SB Midcoat Color
  - 50 parts by volume Lesonal Reducer



### Spray-Gun Set-Up

- 1.3-1.5 mm HVLP Gravity
- 1.3-1.5 mm Compliant Gravity

### Application Air Pressure

- HVLP – 10 psi (0.68 bar) at cap maximum.
- Consult manufacturers' specifications.



### Application – Groundcoat

- 2 to 3 medium wet coats.
  - Metallic groundcoats may require a final orientation coat.

### Application – Midcoat

- Pearl midcoat – apply 3 to 4 thin coats.
- Translucent midcoat – apply 3 to 4 wet coats.

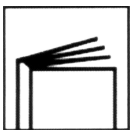


### Flash Groundcoat at 70°F (21°C)

- 2 – 5 minutes between coats.
- 15 – 20 minutes before midcoat.

### Flash Midcoat at 70°F (21°C)

- 2 – 5 minutes between pearl coats.
- 5 – 10 minutes between translucent midcoats.
- 15 – 20 minutes before clearcoat.



### Re-Coatable With

- Lesonal Universal
- Lesonal Pro-Air
- Lesonal Pro-Air LV
- Lesonal Universal Eco Clear LV

Read complete the complete TDS and the product Safety Data Sheet (SDS) for detailed product information.



# Basecoat SB

## 3-Stage Application and Repair

FOR PROFESSIONAL USE ONLY

### Description

Tri-coat or 3-stage colors are base coat / clear coat colors where the color is applied in two phases. An opaque first layer color is followed by a more transparent second color. The third, clear coat segment is then applied to provide gloss and protection to the system. The special techniques required when repairing these types of colors are easy to accomplish following the Lesonal Basecoat SB process.

### Suitable Substrates



- Stable existing finishes
  - Sanded Lesonal primer surfacer
  - Lesonal primer sealers after flash drying
  - Lesonal SB Blending Additive after flash drying
- Do not apply over thermoplastic acrylic lacquers, in case lacquer is encountered, the entire lacquer finish should be removed or must be sealed with a Lesonal undercoat system.

### Products and Additives

<b>Product</b>	<ul style="list-style-type: none"> <li>• Lesonal SB – Per pre-mixed formula</li> </ul>
<b>Hardeners</b>	<ul style="list-style-type: none"> <li>• Lesonal Clear Hardener (Quart) – Item # 395734</li> <li>✓ To maintain National Rule VOC for 3 stage colors, 10% hardener must be added to the groundcoat color.</li> <li>✓ Hardener may be added to extend clearcoat time of Basecoat SB Solid colors.</li> <li>✓ Hardener should be added to Basecoat SB when spraying soft, foam parts.</li> </ul>
<b>Reducer</b>	<ul style="list-style-type: none"> <li>• Lesonal Reducer Extra Fast (Gallon) – Item # 394318               <ul style="list-style-type: none"> <li>○ 50°F – 60°F (10°C – 16°C)</li> </ul> </li> <li>• Lesonal Reducer Fast (Gallon) – Item # 394893               <ul style="list-style-type: none"> <li>○ 60°F – 70°F (16°C – 21°C)</li> </ul> </li> <li>• Lesonal Reducer Medium (Gallon) – Item # 394295               <ul style="list-style-type: none"> <li>○ 70°F – 80°F (21°C – 27°C)</li> </ul> </li> <li>• Lesonal Reducer Slow (Gallon) – Item # 394695               <ul style="list-style-type: none"> <li>○ 80°F – 90°F (27°C – 32°C)</li> </ul> </li> <li>• Lesonal Reducer Extra Slow (Gallon) – Item # 394938               <ul style="list-style-type: none"> <li>○ Above 90°F (32°C)</li> </ul> </li> </ul>
<b>Additives</b>	<ul style="list-style-type: none"> <li>• Basecoat SB Blending Additive – Item # 390166</li> </ul>

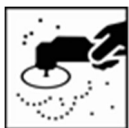
- SDS and TDS for products available online at – <http://my.anaac.net/>

**LESONAL****Basecoat SB****3-Stage Application and Repair****FOR PROFESSIONAL USE ONLY****Basic Raw Materials**

<b>Product</b>	• Basecoat SB	– Physically drying acrylic, polyester resins & pigments.
	• Lesonal Reducers	– Special solvent blends
	• Lesonal Clear Hardener	– Poly-Isocyanate resin
	• Lesonal Basecoat SB Blending Additive	– Physically drying acrylic

**Substrate Preparation****Pre-Cleaning**

- If needed pre-wash the repair with warm soap and water. Rinse completely with clean water.
- Clean with Lesonal Surface Cleaner, AutoPrep Ultra-Prep (VOC compliant) or Plastic Surface Cleaner.

**Sanding Preparation****Sanding****Additional Preparation**

- |                   |   |  |
|-------------------|---|--|
| Existing Finishes | #P500 to #P600 Dry<br>#P600 – #P800 Wet | – Respect a maximum 100 sanding grit step difference throughout a dry sanding process. |
| ○ Repair area     |   |  |



- |                    |   |  |
|--------------------|---|--|
| Existing Finishes  | #P1000 Dry<br>or Gray Scuff Pad with<br>BlendPrep | – If sanding use a D/A sander with a soft interface pad and slow sander RPM. |
| ○ Color blend area |   |  |

**Surface Cleaning – Prior to Paint Application**

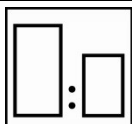
- Clean with Lesonal Surface Cleaner, AutoPrep Ultra-Prep (VOC compliant) or Plastic Surface Cleaner.
- Blow off and tack the surface before paint application.

**Product Agitation****Stirring**

- Because Basecoat SB is a high solids paint it needs to be agitated before use.
- Stir or shake vigorously before each use.

**Mixing Color Formulas and Products****Formulas**

- Formulas are available to match the most popular OEM colors. These are available in Mixit Online or Mixit-Pro Color Manager.
  - Ensure when a specified primer color is suggested to use that shade of undercoat primer.
  - For easy mixing of color formulas or products, final mixing including hardening, reduction and the addition of additives can be done through the Color Manager program.

**LESONAL****Basecoat SB****3-Stage Application and Repair****FOR PROFESSIONAL USE ONLY****Mixing**

STICK #9/10

- **Groundcoat Color**

- 100 parts by volume Basecoat SB Groundcoat color

- 10 parts by volume Lesonal Clear Hardener

- Stir together then add –

- 50 parts by volume Lesonal Reducer

- **Midcoat Color**

- 100 parts by volume Basecoat SB Midcoat Color

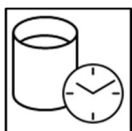
- 50 parts by volume Lesonal Reducer

- ✓ To maintain National Rule VOC for 3 stage colors, 10% hardener must be added to the groundcoat color.

**Viscosity – Ready to Spray**

**14–16  
Seconds**

Measured with a DIN #4 viscosity cup at 70°F (21°C).

**Pot-Life When Mixed****Product Mix**

- Basecoat SB solid, metallic and basecoat pearl colors reduced.
- Basecoat SB midcoat pearl color reduced.
- Basecoat SB colors including Clear Hardener and reduced.

**70°F (21°C)**

6 months  
24 hours  
4 hours

**Spray Gun Set-Up****Spray-Gun Set-Up**

- 1.3-1.5 mm HVLP Gravity
- 1.3-1.5 mm Compliant Gravity

**Application Air Pressure**

- HVLP – 10 psi (0.68 bar) at cap maximum.
- Consult manufacturers' specifications.

**3-Stage Application Points to Consider**

- Cleanliness is of the utmost importance. Tack frequently during the application process.
- The application of midcoat color must be consistent and even to avoid a cloudy appearance.
- Altering the overlap areas between coats will help avoid darker areas between panels.
- Some unique colors may require 1-2 additional coats for the desired appearance.

**LESONAL****Basecoat SB****3-Stage Application and Repair****FOR PROFESSIONAL USE ONLY****3-Stage Let Down Panels**

Let down panels are used as an aid to estimate the number of second layer or mid-coat applications that are needed to achieve a suitable color match for three stage colors. They are used as a tool for comparing the build-up of applications to the repair vehicle so the painter can determine the suitable number of mid-coat layers to arrive at a suitable color match for the job.

- The color of the foundation coat and the thickness of the mid-coat determine the hue of three stage colors. Therefore a let-down panel allows the painter to evaluate the combination of both.
- When completed, your let down panels should also include one that has not been painted with the second layer color. You can then use this let-down panel to assess the first layer color.

**Let-Down Panel Application**

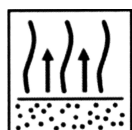
- 1) Apply the foundation color to five spray-out panels and dry 15 minutes.
- 2) Mask 4 of the 5 panels and apply 2 coats of mid-coat and dry until matte.
- 3) With 3 of 5 panels masked, apply another coat of mid-coat and dry until matte.
- 4) With 2 of 5 panels masked, apply another coat of mid-coat and dry until matte.
- 5) Finally, With 1 of 5 panels masked, apply another coat of mid-coat and dry until 15 minutes.
- 6) Mask off 1/2 of the four panels that have mid-coat applied to them.
- 7) Clearcoat the un-masked portion of the let-down panels.
  - ✓ When spraying an actual repair stop one coat short of the estimated number of coats of the Midcoat. Using the midcoat side of the let-down do an evaluation of your progress and determine how many more coats of the second layer may be needed.

**Overall Application****Application – Groundcoat**

- 2 to 3 medium wet coats.
  - Metallic groundcoats may require a final orientation coat.

**Application – Midcoat**

- Pearl midcoat – apply 3 to 4 thin coats.
- Translucent midcoat – apply 3 to 4 wet coats.

**Flash Drying****Flash Groundcoat at 70°F (21°C)**

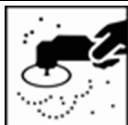
- 2 to 5 minutes between coats.
- 15 to 20 minutes before midcoat

**Flash Midcoat at 70°F (21°C)**

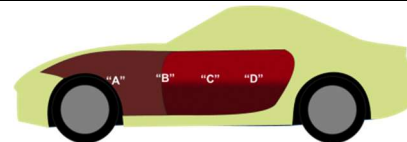
- 2 – 5 minutes between pearl coats.
- 5 – 10 minutes between translucent coats.
- 15 – 20 minutes before clearcoat.

**LESONAL****Basecoat SB****3-Stage Application and Repair****FOR PROFESSIONAL USE ONLY**

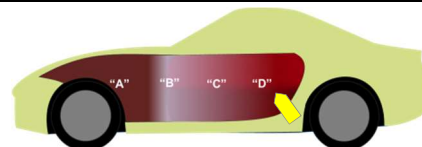
- Flash time will be dependent on ambient temperature, applied paint wetness/thickness and available air-flow.
- Maximum open time/recoat time for metallic color is 48 hours.
- Maximum open time/recoat time for solid color is 5 hours. Solid colors with hardener have a maximum recoat window of 48 hours.

**Blending Repair Application****Surface Prep**

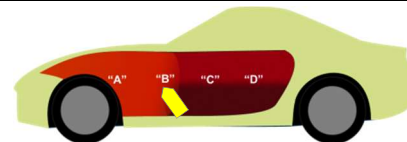
- Sand area "A" using #P500-600 dry or #P600-800 wet.
- Extend into area "B" 4"- 6".
- De-Gloss areas "C" and "D" with a D.A. using #P1000 dry and a 3M Interface pad or 3M Gray Scotch-Brite with Blend Prep and water.

**Application – Blending Foundation**

- Blending Additive should be utilized as a foundation to make layer 1 & 2 easier to blend.
- Extended slightly beyond blend area ("C" to "D").
  - Avoid carrying to the very end of the blend panel.

**Application – Foundation Color**

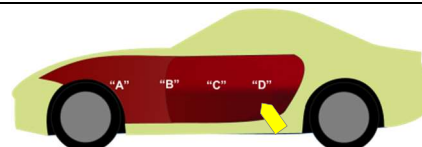
- Spray medium coats in areas "A" and "B" until covered.
- Extend each coat slightly making the final coat fade into the original finish.
- Control overspray and tack between coats.

**Midcoat Color Notes**

- Check each application with the color checking light.
- The midcoat color is transparent to create the effect appearance required. Therefore, while many colors can be completed with 2-3 coats, some may require additional coats to achieve the desired appearance.
- When the foundation color is applied varying amounts of the original effect show through the application. For this reason a corresponding amount of midcoat color must be applied to create a seamless repair. In addition, it is important to make this application as smooth as possible. Therefore an outside-in application is used.

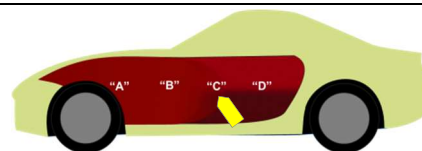
**1<sup>st</sup> Coat Midcoat Color**

- In order to create the smoothest application the blend should be completed using an outside-in application.
- Apply this coat past all the layer 1 color (areas "A", "B", "C") and fade into area "D".

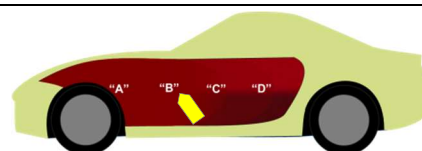


**LESONAL****Basecoat SB****3-Stage Application and Repair****FOR PROFESSIONAL USE ONLY****2<sup>nd</sup> Coat Midcoat Color**

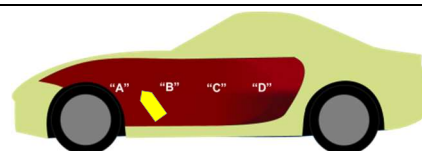
- This application coats areas "A", "B" and "C" including the layer 1 invisible blend.
- The middle of this coat may appear as if it needs more coverage when done. This will be tended to in the next coat.

**3<sup>rd</sup> Coat Midcoat Color**

- After the second coat is applied, looking closely you notice an area that needs to be touched up between areas "B" and "C".
- Apply paint across the repair and to that target area.

**4<sup>th</sup> Coat Midcoat Color**

- The final coat is applied over area "A" and may extend slightly between "A" & "B".
  - ✓ Some colors may require 1 or 2 additional coats. Check your application with a color checking light before proceeding to the next step.
- Flash for 20-30 minutes and apply clear coat.

**Recoating**

After the stated dry time Basecoat SB may be recoated with the following clearcoats.

- Lesonal Universal
- Lesonal Pro-Air
- Lesonal Pro-Air LV
- Lesonal Universal Eco Clear LV

**What to Do****Fisheyes / Craters**

- Fisheyes maybe caused by silicones or other contamination. In that event apply 2 mist coats of basecoat over the contaminated area and proceed with the repair allowing longer flash times. If severe, it may be necessary to allow a dry time of 20-30 minutes, sand, and continue to spray basecoat.
- Adding Anti-Silicon to basecoat is not recommended.

**Second Repair**

- If during the application of groundcoat color, some damage occurs such as dust impregnation or perspiration spots, allow the basecoat to flash off for 20 minutes at 70°F (20°C).
  - If flaws are encountered during the application of the midcoat color, the repair must be dried and sanded then spot repaired with both groundcoat and midcoat in the affected area.
- Lightly sand the damaged area with #P600 grit paper dry. Care must be taken to clean up all sanding residue.
- Re-apply color to the affected area as needed.

**LESONAL****Basecoat SB****3-Stage Application and Repair****FOR PROFESSIONAL USE ONLY****Cleaning of Equipment**

- Clean equipment and dispose of waste following local and federal regulations. In compliant localities, use a VOC compliant high quality solvent borne gun cleaner. For national rule regions, a use high quality lacquer thinner.
- For efficient cleaning and less evaporated cleaning solvents, an enclosed automatic gun cleaning machine is suggested.

**Film Thickness – Using Suitable Application**

- 1 Coat will achieve a thickness of 0.3 – 0.4 mils (7.5-10µm) dry.

**Theoretical Coverage**

- With the recommended application the theoretical material usage is ±187 feet<sup>2</sup>/gallon (4m<sup>2</sup>/liter) at a 1 mil thickness (24.5µm).
- Theoretical coverage is dependent of many factors. These may include; the shape of the object, surface smoothness, application technique and other application variables among others.

**VOC / Regulatory Information****Product**

- Basecoat SB (Ready to Spray 100:50)
- Basecoat SB (Ready to Spray 100:10:50)

**VOC lbs./Ga.    VOC Gr./L.**

– 6.70	– ≤800
– 6.50	– ≤777

- Do not handle until the Safety Data Sheets have been read and understood. Regulations require that all employees be trained on Safety Data Sheets for all chemicals with which they come in contact. The manufacturer recommends the use of an air-supplied respirator when exposed to vapors or spray mist.

**Product Storage**

- Item unopened or used products in approved closed containers with proper labeling. Store in moderate temperatures between 40°F - 95°F (5°C – 35°C). Avoid too much temperature fluctuation. Optimum storage temperature is approximately 70°F (21°C)





North America

Technical Data Sheet

**Basecoat SB**

Basecoat

08/15/18

**3-Stage Application and Repair**

**FOR PROFESSIONAL USE ONLY**

**AkzoNobel Inc., North America**

**Address: 1845 Maxwell Street – Troy, MI USA**

**Telephone: 800.618.1010**

**FOR PROFESSIONAL USE ONLY**

**IMPORTANT NOTE** The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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