



# Permasolid® HS Vario Surfacer 8590



## GENERAL

### DESCRIPTION

A high quality acrylic surfacer from our “2K-Acryl-System” for partial and full passenger car refinishes.

Its versatility enables application at both normal and medium film thicknesses with intermediate sanding and also wet-on-wet adhesion promoter application. The good absorption of overspray and excellent leveling provide outstanding results.

The products referenced herein may not be available for sale in your market. Please consult your distributor for product availability.



## MIXING

### COMPONENTS

Permasolid® HS Vario Surfacer 8590 Gray

### PERMASOLID HS HARDENERS

Permasolid® HS Hardener 3307 Express,  
Permasolid® HS Hardener 3309 Extra Fast,  
Permasolid® HS Hardener 3310 Fast,  
Permasolid® HS Hardener 3315 Medium,  
Permasolid® HS Hardener 3320 Slow, or  
Permasolid® HS Hardener 3325 Extra Slow

Or

### PERMASOLID VHS HARDENERS

Permasolid® VHS Hardener 3220 Express,  
Permasolid® VHS Hardener 3230 Medium,  
Permasolid® VHS Hardener 3240 Slow, or  
Permasolid® VHS Hardener 3245 Extra Slow

For optimum hardener selection, refer to TDS # 061 or 3220-3245.

### REDUCERS

Permacron® Dura Plus 8580,  
Permacron® Reducer 3363 Medium, or  
Permacron® Reducer 3365 Slow

For optimum reducer selection, refer to TDS # 780.0.

### ADDITIVES

Permasolid® Elastic Additive 9050 (before hardener)

### MIX RATIO – WET-ON-WET ADHESION PROMOTER

#### ADHESION PROMOTER WITH HS HARDENERS

Component	Volume
8590	3
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
8580 / 3363 / 3365	+20-30%



**ADHESION PROMOTER WITH VHS HARDENERS**

<b>Component</b>	<b>Volume</b>
8590	5
3220 / 3230 / 3240 / 3245	1
8580 / 3363 / 3365	+30-40%

**APPLICATION VISCOSITY**

As an Adhesion Promoter: 15 to 16 Seconds at 68°F/20°C, DIN 4

**POT LIFE**

As an Adhesion Promoter: Approximately 30-45 minutes at 68°F/ 0°C when ready to spray.

**MIX RATIO – MEDIUM BUILD SANDING SURFACER**

**MEDIUM BUILD SANDING SURFACER WITH HS HARDENERS**

<b>Component</b>	<b>Volume</b>
8590	3
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
8580 / 3363 / 3365	+5-10%

**ELASTIC SANDING SURFACER WITH HS HARDENERS**

<b>Component</b>	<b>Volume</b>
8590	3
9050	+30%
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
8580 / 3363 / 3365	+5-10%

**MEDIUM BUILD SANDING SURFACER WITH VHS HARDENERS**

<b>Component</b>	<b>Volume</b>
8590	5
3220 / 3230 / 3240 / 3245	1
8580 / 3363 / 3365	+10-20%

**ELASTIC SANDING SURFACER WITH VHS HARDENERS**

<b>Component</b>	<b>Volume</b>
8590	5
9050	+30%
3220 / 3230 / 3240 / 3245	1
8580 / 3363 / 3365	+10-20%

**APPLICATION VISCOSITY**

As a Sanding Surfacers: 20 to 25 Seconds at 68°F/20°C, DIN 4

**POT LIFE**

As a Sanding Surfacers: Approximately 20-40 minutes at 68°F/20°C when ready to spray.

**MIX RATIO – ELASTIC WET-ON-WET SEALER**

**ELASTIC SEALER WITH HS HARDENERS**

<b>Component</b>	<b>Volume</b>
8590	3
9050	+30%
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
8580 / 3363 / 3365	+20%



**ELASTIC SEALER WITH VHS HARDENERS**

<b>Component</b>	<b>Volume</b>
8590	5
9050	+30%
3220 / 3230 / 3240 / 3245	1
8580 / 3363 / 3365	+10-20%

**APPLICATION VISCOSITY**

As an Elastic Wet-on-Wet Sealer: 15 to 16 Seconds at 68°F/20°C, DIN 4

**POT LIFE**

As an Elastic Wet-on-Wet Sealer: Approximately 30-45 minutes at 68°F/ 0°C when ready to spray.

**SPECIAL TIPS**

1. In order to make sanding easier, apply guide coat before sanding. Do not spray onto wet surfacer.
2. When air drying a minimum temperature of 55°F/13°C must be maintained or 46°F/8°C when using Permasolid® HS Hardener 3307 Express.
3. Do not apply wet-on-wet adhesion promoter over reversible substrates, only over e-coat.
4. When using VHS Hardeners, be sure the mixture is stirred very thoroughly.
5. See ColorNet® product retrieval for mixing with VHS Hardeners.




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**APPLICATION**

**SUBSTRATES**

Thoroughly degreased, non-sanded or lightly sanded E-coat  
 Original or old paintwork (except reversible substrates)  
 Properly prepared fiberglass with no exposed fibers  
 Raderal® Polyester products  
 Priomat®, Permasolid®, and Permahyd® Primers and Surfacer

**SURFACE PREPARATION**

- Degrease and sand.
- Prior to applying a sanding surfacer, sand body filler with P180 or finer grit sandpaper and/or sand feather edge areas with P180, then P240, and finish with P320.
- For wet-on-wet adhesion promoter or sealer application, finish sand with P400.
- Before further treatment, clean all substrates thoroughly with Permaloid® Silicone Removers 7087 or 7010 Slow, Permahyd® Silicone Remover 7085, or Permahyd® Silicone Remover 7096.

\*Special Note - In order to ensure optimum corrosion protection, we recommend to coat areas of bare metal including small sand through spots with Priomat® Wash Primer 4075, Priomat® Primer 3255 Red Brown, or Priomat® 1K Primer Surfacer 4085.

**SPRAYGUN SETUP**

	<b>Sealer</b>	<b>Surfacer</b>
HVLP	1.3-1.4mm	1.4-1.7mm
Approved Transfer Efficiency	1.2-1.3mm	1.4-1.7mm

Please refer to gun manufacturer and local legislation for proper spray pressure recommendations.

**APPLICATION**

- As a Wet-on-Wet Adhesion Promoter: Option 1 – 1 medium coat followed by 1 full coat without intermediate flash-off.



- As a Wet-on-Wet Adhesion Promoter: Option 2 – 2 coats with approx. 5 minutes intermediate flash-off between coats.
- As a Wet-on-Wet Adhesion Promoter: Recoat after 15-20 minutes or by 8 hours at 68°F/20°C.
- As a Medium Build Sanding Surfacer: Apply 2 – 3 coats with approx. 5-10 minutes intermediate flash-off between coats.

**RECOMMENDED FILM THICKNESS**

As a Wet-on-Wet Adhesion Promoter: Approximately 0.6 mil dry film thickness  
 As a Medium Build Sanding Surfacer: Approximately 2.0 – 5.0 mil dry film thickness



**DRY TIMES**

**AIR DRYING – MEDIUM BUILD SANDING SURFACER**

Drying time at 68°F/20°C: 12 hours

**LOW BAKE**

Flash-off time: 5 minutes  
 Drying time at 140°F/60°C metal temp.: 20-30 minutes at 2.0 – 3.5 mil  
 40-50 minutes at 4.0 – 4.5 mil

**INFRARED DRYING**

Flash-off time: 5 minutes

1. Short wave: Approx. 10 minutes depending on film thickness
2. Medium wave: Approx. 10-20 minutes depending on film thickness

**DRY SANDING**

Dry Sanding with random orbital sander and dust extraction  
 Initial sanding: P320  
 Final sanding: P500 – 800

**WET SANDING**

Initial sanding: P320  
 Final sanding: P600 – 800

**RECOAT**

With Permacron® Base Coat Series 293/295 or Permahyd® Hi-TEC 480.



**PHYSICAL PROPERTIES**

**Coating Category:** Adhesion Promoter (with HS Hardeners)  
 Max. VOC (AP/LE): 587 g/l; 4.9 lbs/gal  
 Avg. Gallon Weight: 1298.0 g/l; 10.83 lbs/gal  
 Avg. Weight % Volatiles: 45.1 %  
 Avg. Weight % Water: 0.0%  
 Avg. Weight % Exempt Solvent: 0.0 %  
 Avg. Volume % Water: 0.0%  
 Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 575.5 sq. ft. @ 1 mil  
 Theoretical Coverage @ Recommended Film Build: 959 sq. ft.

**Coating Category:** Adhesion Promoter (with VHS Hardeners)  
 Max. VOC (AP/LE): 587 g/l; 4.9 lbs/gal  
 Avg. Gallon Weight: 1305.9 g/l; 10.9 lbs/gal



Avg. Weight % Volatiles: 44.5 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 0.0 %  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 578.4 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 964 sq. ft.

**Coating Category:** Primer (Sanding Surfacer with HS Hardeners)

Max. VOC (AP/LE): 527 g/l; 4.4 lbs/gal  
Avg. Gallon Weight: 1366.9 g/l; 11.41 lbs/gal  
Avg. Weight % Volatiles: 38.3 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 0.0 %  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 680.1 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 136 -340 sq. ft.

**Coating Category:** Primer (Sanding Surfacer with VHS Hardeners)

Max. VOC (AP/LE): 527 g/l; 4.4 lbs/gal  
Avg. Gallon Weight: 1370.4 g/l; 11.44 lbs/gal  
Avg. Weight % Volatiles: 38.3 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 0.0 %  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 674.8 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 134 -337 sq. ft.

**Coating Category:** Primer (Elastic Sanding Surfacer with HS Hardeners)

Max. VOC (AP/LE): 479 g/l; 4.0 lbs/gal  
Avg. Gallon Weight: 1298.4 g/l; 10.83 lbs/gal  
Avg. Weight % Volatiles: 37.3 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 0.0 %  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 749.4 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 149 -375 sq. ft.

**Coating Category:** Primer (Elastic Sanding Surfacer with VHS Hardeners)

Max. VOC (AP/LE): 479 g/l; 4.0 lbs/gal  
Avg. Gallon Weight: 1300.7 g/l; 10.85 lbs/gal  
Avg. Weight % Volatiles: 37.3 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 0.0 %  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 745.3 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 149 -372 sq. ft.



**Coating Category:** Sealer (Elastic Sealer With HS Hardeners)

Max. VOC (AP/LE): 515 g/l; 4.3 lbs/gal  
Avg. Gallon Weight: 1266.8 g/l; 10.57 lbs/gal  
Avg. Weight % Volatiles: 41.1 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 0.0 %  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 686.9 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 1144 sq. ft.

**Coating Category:** Sealer (Elastic Sealer with VHS Hardeners)

Max. VOC (AP/LE): 479 g/l; 4.0 lbs/gal  
Avg. Gallon Weight: 1301.7 g/l; 10.86 lbs/gal  
Avg. Weight % Volatiles: 37.3 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 0.0 %  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 0.0 %

Theoretical Coverage: 746.4 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 1244.sq. ft.

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## VOC REGULATED AREAS

These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

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## SAFETY AND HANDLING

For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

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