



# Permasolid® Spectro Sealer 5450 – National Rule



## GENERAL

### DESCRIPTION

A premium, 2K high solid system that can be used as a wet-on-wet sealer, under hood color, sanding surfacer, or as a flexible sealer or surfacer for plastic repairs. Now available in black, white, red, blue, green, and yellow. All colors may be mixed together to get an unlimited number of colors, including shades of gray. This easy-to-apply productive sealer/surfacer has been designed for use with both Permahyd® Hi-TEC 480 and Permacron® Base Coat Series 293/295.

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



## MIXING

### COMPONENTS

Permasolid® Spectro Sealer 5450

### 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 Technical Data Sheet No. 061 or 3220 - 3245.*

### ADDITIVES

Permasolid Surfacer Additive 5408 Fast  
Permasolid Surfacer Additive 5409  
Permasolid Surfacer Additive 5410 Slow  
Permasolid Elastic Additive 9050 (before hardener)

*For optimum reducer/additive selection, refer to Technical Data Sheet No. 780.0.*

## MIX RATIO – WET-ON-WET SEALER / UNDER HOOD COLOR

### SEALER / UNDER HOOD COLOR WITH HS HARDENERS

Component	Volume
5450	3
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
5409 / 5410	+20-25%



**ELASTIC SEALER WITH HS HARDENERS**

<b>Component</b>	<b>Volume</b>
5450	2
9050	+15-30%
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
5409 / 5410	+20-25%

**SEALER / UNDER HOOD COLOR WITH VHS HARDENERS**

<b>Component</b>	<b>Volume</b>
5450	5
3220 / 3230 / 3240 / 3245	1
5409 / 5410	+25-30%

**ELASTIC SEALER WITH VHS HARDENERS**

5450	4
9050	+15-30%
3220 / 3230 / 3240 / 3245	1
5409 / 5410	+25-30%

**APPLICATION VISCOSITY**

As a Wet-On-Wet Sealer: 13-14 seconds at 68°F/20°C, DIN 4

**POT LIFE**

As a Wet-On-Wet Sealer: Approximately 1 hour at 68°F/20°C when ready to spray.

**MIX RATIO – MEDIUM BUILD SANDING SURFACER**

**SANDING SURFACER WITH HS HARDENERS**

<b>Component</b>	<b>Volume</b>
5450	4
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
5408	+5%

**ELASTIC SANDING SURFACER WITH HS HARDENERS**

5450	3
9050	+15-30%
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
5408	+5%



Permasolid Spectro Sealer 5450 White and Black can be combined per the table below to achieve the color positions of the existing Permasolid HS Premium Surfacer 5310 – Light and Dark Gray.

Pour Size	5310 (Light Gray) Color Position				5310 (Dark Gray) Color Position			
	Half Liter		Liter		Half Liter		Liter	
	No Reduction		5% Reduction		No Reduction		5% Reduction	
5450 White, SP 150	649.0	1298.0	619.0	1238.0	495.0	990.0	471.0	942.0
5450 Black, SP 151	10.0	20.0	9.5	19.0	150.0	300.0	143.0	286.0
HS Hardeners	102.0	204.0	97.0	194.0	102.0	204.0	97.0	194.0
5408 Fast	0.0	0.0	21.5	43.0	0.0	0.0	21.5	43.0

Permasolid Spectro Sealer 5450 White and Black can be combined per the table below to achieve the color position of the existing Permasolid Vario Surfacer 8590 Gray.

Pour Size	8590 Color Position			
	Half Liter		Liter	
	No Reduction		5% Reduction	
5450 White, SP 150	628.0	1256.0	598.0	1196.0
5450 Black, SP 151	30.0	60.0	28.5	57.0
HS Hardeners	102.0	204.0	97.0	194.0
5408 Fast	0.0	0.0	21.5	43.0

**SANDING SURFACER WITH VHS HARDENERS**

Component	Volume
5450	6
3220 / 3230 / 3240 / 3245	1
5408	+5-10%

**ELASTIC SANDING SURFACER WITH VHS HARDENERS**

5450	5
9050	+15-30%
3220 / 3230 / 3240 / 3245	1
5408	+5-10%



Permasolid Spectro Sealer 5450 White and Black can be combined per the table below to achieve the color positions of the existing Permasolid HS Premium Surfacer 5310 – Light and Dark Gray.

Individual weights (in grams)	5310 (Light Gray) Color Position				5310 (Dark Gray) Color Position			
	5% Reduction		10% Reduction		5% Reduction		10% Reduction	
	Half Liter	Liter	Half Liter	Liter	Half Liter	Liter	Half Liter	Liter
5450 White, SP 150	637.0	1274.0	608.0	1216.0	505.0	1010.0	482.0	964.0
5450 Black, SP 151	10.0	20.0	9.5	19.0	153.0	306.0	146.0	292.0
VHS Hardeners	69.5	139.0	66.5	133.0	72.5	145	69.0	138.0
5408 Fast	20.5	41.0	39.5	79.0	21.5	43.0	41.0	82.0

Permasolid Spectro Sealer 5450 White and Black can be combined per the table below to achieve the color position of the existing Permasolid Vario Surfacer 8590 Gray.

Pour Size	8590 Color Position			
	Half Liter		Liter	
	5% Reduction		10% Reduction	
5450 White, SP 150	616.0	1232.0	588.0	1176.0
5450 Black, SP 151	29.5	59.0	28.0	56.0
VHS Hardeners	69.5	139.0	66.5	133.0
5408 Fast	20.5	41.0	39.5	79.0

**APPLICATION VISCOSITY**

As a Sanding Surfacer: 18-22 seconds at 68°F/20°C, DIN 4

**POT LIFE**

As a Sanding Surfacer: Approximately 1 hour at 68°F/20°C when ready to spray.

**SPECIAL TIPS**

1. When using ColorNet®, Permasolid Spectro Sealer 5450 can be easily mixed by weight on the scale.
2. When mixing Permasolid Spectro Sealer 5450, do not substitute with additional 2K reducers or replace Permasolid Surfacer Additive 5409, Permasolid Surfacer Additive 5410 Slow, or Permasolid Surfacer Additive 5408 Fast with 2K Reducers.
3. Always reduce to recommended viscosity; additional Permasolid Surfacer Additive 5409 or Permasolid Surfacer Additive 5410 Slow may be used without impacting compliance.
4. Permasolid VHS Hardener 3220 Express should be used for best results when mixing and using Permasolid Spectro Sealer 5450 as a sanding surfacer in cool temperatures (<68°F/20°C).
5. When using VHS Hardeners, be sure the mixture is stirred very thoroughly.
6. Due to lower viscosity, lower spray pressure may be considered (24 – 27 PSI).
7. In order to make sanding easier, apply guide coat before sanding.
8. 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.
9. Sanded surface should be re-sanded if not top-coated within 8 hours.



10. Over-application or lack of proper flash times will result in less than optimal performance.
11. Product must be stored above 60°F/15°C.
12. When finishing plastics please refer to VR Technical Data Sheet No. 901.1.
13. When used as an under hood color, top coat is not required.



## APPLICATION

### SUBSTRATES

Thoroughly degreased, non-sanded, or lightly sanded E-coat.  
 Original or old paintwork (except reversible substrates, Example: lacquer).  
 Properly prepared fiberglass with no exposed fibers.  
 Raderal® Polyester products  
 Priomat®, Permahyd, and Permasolid 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.
- Before further treatment, clean all substrates thoroughly with:
  - Permaloid® Silicone Removers 7087 or 7010 Slow, Permahyd Silicone Removers 7085, 7086 or 7096.
  - Axalta™ Silicone Remover 200 Slow, Axalta™ Silicone Remover 205A Spray, Axalta™ Silicone Remover 210 Water or Axalta™ Silicone Remover 220 Low VOC.

\*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

	Sealer	Surfacer
HVLP	1.3-1.4mm	1.4-1.6mm
Approved Transfer Efficiency	1.2-1.3mm	1.4-1.6mm

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

### APPLICATION

- As a Wet-On-Wet Sealer: Apply a light coat followed by a medium coat without intermediate flash-off.
- As a Wet-On-Wet Sealer: Recoat after a minimum of 20 minutes or max. overnight flash-off before topcoat.
- As a Medium Build Sanding Surfacer: Apply 2-4 coats with 10-15 minute intermediate flash-off between coats.

### RECOMMENDED FILM THICKNESS

As an Under Hood Color: 1.5 coats for 0.8 – 1.0 mil dry film thickness.  
 As a Wet-On-Wet Sealer: 1.5 coats for 1.0 – 1.2 mil dry film thickness.  
 As a Medium Build Sanding Surfacer: 2 - 4 coats for 3.0 – 6.0 mil dry film thickness.



## DRY TIMES

### AIR DRYING – MEDIUM BUILD SANDING SURFACER

Drying time at 68°F/20°C: 3-4 hours at 3.0 – 6.0 mils

### LOW BAKE

Flash-off time: 10-15 minutes  
 Drying time at 130°F/55°C metal temp.: 30 minutes at 3.0 – 6.0 mils



**INFRARED DRYING**

- Flash-off time: 10-15 minutes
1. Short wave: 10 minutes at 3.0 – 6.0 mils
  2. Medium wave: 15 minutes at 3.0 – 6.0 mils

**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:** Sealer (Wet-on-Wet Sealer / Underhood Color with HS Hardeners)

Max. VOC (AP): 192 g/l; 1.6 lbs/gal  
 Max. VOC (LE): 324 g/l; 2.7 lbs/gal  
 Avg. Gallon Weight: 1467.5 g/l; 12.25 lbs/gal  
 Avg. Weight % Volatiles: 48.8 %  
 Avg. Weight % Water: 0.0%  
 Avg. Weight % Exempt Solvent: 35.5%  
 Avg. Volume % Water: 0.0%  
 Avg. Volume % Exempt Solvent: 39.5%

Theoretical Coverage: 625.3 sq. ft. @ 1 mil  
 Theoretical Coverage @ Recommended Film Build: 500 - 625 sq. ft.

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

Max. VOC (AP): 228 g/l; 1.9 lbs/gal  
 Max. VOC (LE): 336 g/l; 2.8 lbs/gal  
 Avg. Gallon Weight: 1353.0 g/l; 11.29 lbs/gal  
 Avg. Weight % Volatiles: 48.4 %  
 Avg. Weight % Water: 0.0%  
 Avg. Weight % Exempt Solvent: 31.5%  
 Avg. Volume % Water: 0.0%  
 Avg. Volume % Exempt Solvent: 32.2%

Theoretical Coverage: 685.4 sq. ft. @ 1 mil  
 Theoretical Coverage @ Recommended Film Build: 571 - 685 sq. ft.

**Coating Category:** Sealer (Wet-on-Wet Sealer / Underhood with VHS Hardeners)

Max. VOC (AP): 172 g/l; 1.4 lbs/gal  
 Max. VOC (LE): 279 g/l; 2.3 lbs/gal  
 Avg. Gallon Weight: 1396.6 g/l; 11.65 lbs/gal  
 Avg. Weight % Volatiles: 48.6 %  
 Avg. Weight % Water: 0.0%  
 Avg. Weight % Exempt Solvent: 36.3%  
 Avg. Volume % Water: 0.0%  
 Avg. Volume % Exempt Solvent: 38.4%



Theoretical Coverage: 677.5 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 656 - 821 sq. ft.

**Coating Category:** Sealer (Elastic Sealer with VHS Hardeners)  
Max. VOC (AP): 192 g/l; 1.6 lbs/gal  
Max. VOC (LE): 268 g/l; 2.2 lbs/gal  
Avg. Gallon Weight: 1327.8 g/l; 11.08 lbs/gal  
Avg. Weight % Volatiles: 42.55 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 28.04%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 28.17%

Theoretical Coverage: 805.9 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 734 - 612 sq. ft.

**Coating Category:** Primer (Sanding Surfacer with HS Hardeners)  
Max. VOC (AP): 216 g/l; 1.8 lbs/gal  
Max. VOC (LE): 324 g/l; 2.7 lbs/gal  
Avg. Gallon Weight: 1536.4 g/l; 12.82 lbs/gal  
Avg. Weight % Volatiles: 42.2 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 28.3%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 33.3%

Theoretical Coverage: 688.1 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 115 - 229 sq. ft.

**Coating Category:** Primer (Elastic Sanding Surfacer with HS Hardeners)  
Max. VOC (AP): 240 g/l; 2.0 lbs/gal  
Max. VOC (LE): 324 g/l; 2.7 lbs/gal  
Avg. Gallon Weight: 1409.3 g/l; 11.76 lbs/gal  
Avg. Weight % Volatiles: 40.5 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 23.3%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 25.1%

Theoretical Coverage: 768.4 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 128 - 256 sq. ft.

**Coating Category:** Primer (Sanding Surfacer with VHS Hardeners)  
Max. VOC (AP): 180 g/l; 1.5 lbs/gal  
Max. VOC (LE): 300 g/l; 2.5 lbs/gal  
Avg. Gallon Weight: 1557.7 g/l; 13.0 lbs/gal  
Avg. Weight % Volatiles: 43.4 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 31.6%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 37.5%

Theoretical Coverage: 670.8 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 112 - 224 sq. ft.



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

Max. VOC (AP): 204 g/l; 1.7 lbs/gal  
Max. VOC (LE): 288 g/l; 2.4 lbs/gal  
Avg. Gallon Weight: 1441.8 g/l; 12.03 lbs/gal  
Avg. Weight % Volatiles: 41.4 %  
Avg. Weight % Water: 0.0%  
Avg. Weight % Exempt Solvent: 27.3%  
Avg. Volume % Water: 0.0%  
Avg. Volume % Exempt Solvent: 29.9%

Theoretical Coverage: 756.3 sq. ft. @ 1 mil  
Theoretical Coverage @ Recommended Film Build: 126 - 252 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 SDS 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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