

Permasolid®

2.1 Surfacer 5157 – US National Rule



GENERAL

DESCRIPTION

A quality 2K acrylic urethane, high solids and high build surfacer. It is easy to apply, has good absorption of overspray, excellent leveling, dries quickly, sands with ease, and is available in white and dark gray.

Permasolid® 2.1 Surfacer 5157 also offers a reduced bake temperature, making it more economical.

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



MIXING

COMPONENTS

Permasolid® 2.1 Surfacer 5157 White
Permasolid® 2.1 Surfacer 5157 Dark Gray

HARDENERS

Permasolid® HS Hardeners
Or

Permasolid® VHS Hardeners

For optimum hardener selection, refer to TDS # 061 and 3220 – 3245.

REDUCERS

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

ADDITIVES

Permasolid® Surfacer Additive 5409,
Permasolid® Surfacer Additive 5410 Slow, or
Permasolid® Elastic Additive 9050 (before hardener)

For optimum reducer/additive selection, refer to TDS # 780.0.

MIX RATIO

SANDING SURFACER WITH HS HARDENERS

Component	Volume
5157	4
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
8580 / 3363 / 3365 / 5409 / 5410	+5-10%

ELASTIC SANDING SURFACER WITH HS HARDENERS

Component	Volume
5157	4
9050	+15%
3307 / 3309 / 3310 / 3315 / 3320 / 3325	1
8580 / 3363 / 3365 / 5409 / 5410	+5-10%



SANDING SURFACER WITH VHS HARDENERS

Component

5157

3220 / 3230 / 3240 / 3245

8580 / 3363 / 3365 / 5409 / 5410

Volume

6

1

+10-20%

ELASTIC SANDING SURFACER WITH VHS HARDENERS

Component

5157

9050

3220 / 3230 / 3240 / 3245

8580 / 3363 / 3365 / 5409 / 5410

Volume

6

+15%

1

+10-20%

VHS Hardener Mixing Chart

Color	5157 White					
Pour Size	Half Liter			Liter		
Individual Weight (in grams)	10% Reduction	15% Reduction	20% Reduction	10% Reduction	15% Reduction	20% Reduction
5157 White	652.1	623.8	597.8	1304.2	1247.5	1195.5
VHS Hardener	70.0	67.0	64.2	140.0	133.9	128.4
Reducer or Dura Plus	40.8	58.6	74.8	81.6	117.1	149.7
Or						
5409	57.0	81.8	104.5	114.0	163.6	209.0
Or						
5410	52.7	75.6	96.6	105.4	151.2	193.3

Color	5157 Dark Gray					
Pour Size	Half Liter			Liter		
Individual Weight (in grams)	10% Reduction	15% Reduction	20% Reduction	10% Reduction	15% Reduction	20% Reduction
5157 Dark Gray	612.7	586.1	561.7	1225.4	1172.1	1123.3
VHS Hardener	70.0	67.0	64.2	140.0	133.9	128.4
Reducer or Dura Plus	40.8	58.6	74.8	81.6	117.1	149.7
Or						
5409	57.0	81.8	104.5	114.0	163.6	209.0
Or						
5410	52.7	75.6	96.6	105.4	151.2	193.3



APPLICATION VISCOSITY

20 – 24 seconds at 68°F/20°C, DIN 4

POT LIFE

Depending on hardener and additive used, approximately 60-90 minutes at 68°F/20°C when ready to spray.

SPECIAL TIPS

1. In order to make sanding easier, apply a guide coat before sanding. Do not apply onto wet surfacer.
2. When air drying a minimum temperature of 59°F/13°C must be maintained.
3. For the best isolation properties, a dry film thickness of 3-4 mil applied in 2 coats and air drying overnight is recommended. On critical substrates, 5157 should be applied to the entire panel.
4. To optimize sanding properties, elasticized Permasolid® 2.1 Surfacers 5157 White and Dark Gray should be dried 45 minutes at 130°F/55°C metal temperature.



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.
Radical® Polyester products
Priomat® Primers

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 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 Surfacers 4085.

SPRAYGUN SETUP

HVLP	1.4-1.6mm
Approved Transfer Efficiency	1.4-1.6mm

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

APPLICATION

- Apply 2-4 coats with 5-10 minutes intermediate flash-off between coats.

RECOMMENDED FILM THICKNESS

4 – 6 mil dry film thickness



DRY TIMES

AIR DRYING

Drying time at 68°F/20°C:

2K Reducers: 2 to 3 hours at 4.0-6.0 mil
5409 or 5410: 1 to 1.5 hours at 4.0-6.0 mil

LOW BAKE

Flash-off time:

5 to 15 minutes



Drying time at 130°F/55°C metal temp.: 30 minutes at 4.0-6.0 mil

INFRARED DRYING

Flash-off time: 5 to 15 minutes
 1. Short wave: 10 minutes at 4.0-6.0 mil
 2. Medium wave: 15 minutes at 4.0-6.0 mil

Note: After low bake or infrared drying, allow the surfacer to cool down for 30 minutes before sanding. With less than 50% air humidity, allow for longer drying time.

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



PHYSICAL PROPERTIES

Coating Category: Primer (5157 w/ 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: 12.78 g/l; 1531.5 lbs/gal
 Avg. Weight % Volatiles: 42.3%
 Avg. Weight % Water: 0.0%
 Avg. Weight % Exempt Solvent: 28.3%
 Avg. Volume % Water: 0.0%
 Avg. Volume % Exempt Solvent: 33.4%

Coating Category: Primer (5157 Elastic w/ HS Hardeners)

Max. VOC (AP): 228 g/l; 1.9 lbs/gal
 Max. VOC (LE): 312 g/l; 2.6 lbs/gal
 Avg. Gallon Weight: 12.31 g/l; 1474.7 lbs/gal
 Avg. Weight % Volatiles: 41.0%
 Avg. Weight % Water: 0.0%
 Avg. Weight % Exempt Solvent: 25.9%
 Avg. Volume % Water: 0.0%
 Avg. Volume % Exempt Solvent: 29.5%

Theoretical Coverage: sq. ft. 733 @ 1 mil
 Theoretical Coverage @ Recommended Film Build: 122 – 184 sq. ft.

Coating Category: Primer (5157 w/ VHS Hardeners)

Max. VOC (AP): 156 g/l; 1.3 lbs/gal
 Max. VOC (LE): 252 g/l; 2.1 lbs/gal
 Avg. Gallon Weight: 13.01 g/l; 1558.6 lbs/gal
 Avg. Weight % Volatiles: 41.6%
 Avg. Weight % Water: 0.0%
 Avg. Weight % Exempt Solvent: 31.4%
 Avg. Volume % Water: 0.0%
 Avg. Volume % Exempt Solvent: 37.6%



Coating Category: Primer (5157 Elastic w/ VHS Hardeners)

Max. VOC (AP): 168 g/l; 1.4 lbs/gal
Max. VOC (LE): 252 g/l; 2.1 lbs/gal
Avg. Gallon Weight: 12.52 g/l; 1500.5 lbs/gal
Avg. Weight % Volatiles: 40.3%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 29.2%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 33.6%

Theoretical Coverage: sq. ft. 733 @ 1 mil
Theoretical Coverage @ Recommended Film Build: 118 – 178 sq. ft.

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.

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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