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 sold 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 Technical Data Sheet No. 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 Technical Data Sheet No. 780.0

MIX RATIO

SANDING SURFACER WITH HS HARDENERS

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>5157</td>
<td>4</td>
</tr>
<tr>
<td>3307 / 3309 / 3310 / 3315 / 3320 / 3325</td>
<td>1</td>
</tr>
<tr>
<td>8580 / 3363 / 3365 / 5409 / 5410</td>
<td>+5-10%</td>
</tr>
</tbody>
</table>

ELASTIC SANDING SURFACER WITH HS HARDENERS

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>5157</td>
<td>4</td>
</tr>
<tr>
<td>9050</td>
<td>+15%</td>
</tr>
<tr>
<td>3307 / 3309 / 3310 / 3315 / 3320 / 3325</td>
<td>1</td>
</tr>
<tr>
<td>8580 / 3363 / 3365 / 5409 / 5410</td>
<td>+5-10%</td>
</tr>
</tbody>
</table>
### SANDING SURFACER WITH VHS HARDENERS

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>5157</td>
<td>6</td>
</tr>
<tr>
<td>3220 / 3230 / 3240 / 3245</td>
<td>1</td>
</tr>
<tr>
<td>8580 / 3363 / 3365 / 5409 / 5410</td>
<td>+10-20%</td>
</tr>
</tbody>
</table>

### ELASTIC SANDING SURFACER WITH VHS HARDENERS

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</tr>
</tbody>
</table>

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#### VHS Hardener Mixing Chart

<table>
<thead>
<tr>
<th>Color</th>
<th>5157 White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Half Liter</td>
</tr>
<tr>
<td><strong>Pour Size</strong></td>
<td></td>
</tr>
<tr>
<td>Individual Weight (in grams)</td>
<td>10% Reduction</td>
</tr>
<tr>
<td>5157 White</td>
<td>652.1</td>
</tr>
<tr>
<td>VHS Hardener</td>
<td>70.0</td>
</tr>
<tr>
<td>Reducer or Dura Plus</td>
<td>40.8</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Or</td>
<td></td>
</tr>
<tr>
<td>5409</td>
<td>57.0</td>
</tr>
<tr>
<td>Or</td>
<td></td>
</tr>
<tr>
<td>5410</td>
<td>52.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Color</th>
<th>5157 Dark Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Half Liter</td>
</tr>
<tr>
<td><strong>Pour Size</strong></td>
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<td>5157 Dark Gray</td>
<td>612.7</td>
</tr>
<tr>
<td>VHS Hardener</td>
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<td>52.7</td>
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</tbody>
</table>
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.
Raderal® 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:
  o Permasolid Silicone Removers 7087 or 7010 Slow, Permahyd® Silicone Removers 7085, 7086 or 7096.
  o 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
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 mils 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 mils
5409 or 5410: 1 to 1.5 hours at 4.0-6.0 mils
**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 mils

**INFRARED DRYING**
Flash-off time: 5 to 15 minutes
1. Short wave: 10 minutes at 4.0-6.0 mils
2. Medium wave: 15 minutes at 4.0-6.0 mils

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%

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

**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%

**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 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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