

Spies Hecker® Permahyd® Hi-TEC Mazda 46V Repair Process



GENERAL

DESCRIPTION

This document outlines the repair process for Mazda 46V Soul Red, special multi-stage color.

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

COMPONENTS: Ground Coat / Midcoat

Products

Permahyd® Hi-TEC WT Additive 6050
 Permahyd® Hi-TEC WT Additive 6052
 Permahyd® Hi-TEC WT Additive 6053
 Permahyd® Hi-TEC 1050 Blend in Additive
 Permahyd® Hi-TEC 1051 Special Blend in Additive
 Permahyd® Hi-TEC 6054 Effect Control
 Permahyd® Hi-TEC 3080 Hardener

- Shelf life is a guide and products may be used beyond suggested shelf life
- Mixed colors (no WT Additive) may be stored for 6 months in the proper container

COMPONENTS: Tinted Midcoat

Permacron® Transparent Midcoat 9100
 Permasolid® Low VOC Reducer 3394 Medium

PERMASOLID LOW VOC HARDENERS

Permasolid® Low VOC Hardeners 3194 Medium
 Permasolid® Low VOC Hardeners 3196 Slow

or

REDUCERS

Permacron® Reducer 3363 Medium
 Permacron® Reducer 3365 Slow

PERMASOLID VHS HARDENERS

Permasolid® VHS Hardener 3240 Slow
 Permasolid® VHS Hardener 3245 Extra Slow



MIXING

MIX RATIO

Ground Coat

	Volume
Effect / Metallic	1
Permahyd® Hi-TEC 3080 Hardener	5%
Permahyd® Hi-TEC WT Additive 6050,6052,6053	20-30%

Midcoat

Volume

Metallic / Pearl Colors	1
Permahyd® Hi-TEC 6054 Effect Control	3

Tinted Midcoat

PERMASOLID LOW VOC HARDENERS

Component	Volume
Permacron 9100	1
3394	1
3194 / 3196	+3%

PERMASOLID VHS HARDENERS

Component	Volume
Permacron 9100	1
3363 / 3365	1
3240 / 3245	+3%

APPLICATION VISCOSITY

As mixed

SPECIAL TIPS

Preparation and application procedure

- Adjacent blend panels may be required for proper blend transition.
- Do not use Activator in the ground coat colors containing WT388



APPLICATION

SUITABLE SUBSTRATES

Original or old paintwork (except reversible substrates)
 Priomat® 1K Primer Surfacer 4085
 Permacron® Primer/Surfacers
 Permahyd® Primer/Surfacers
 Permasolid® Surfacers
 Permahyd 1K Surfacer and Sealer
 Axalta 1K Primer Surfacer 400A Dark Gray
 Axalta 1K Primer Surfacer 410A Light Gray

SURFACE PREPARATION:

1. Degrease and sand.
2. Use P-600 or finer by hand to abrade any areas inaccessible by DA sander
3. Sand the surface with a DA sander and an interface pad with P-600.
4. Before further treatment, clean all substrates thoroughly with Axalta™ Silicone Remover 200 Slow, Axalta Silicone Remover 205A Spray, Axalta Silicone Remover 210 Water or Axalta Silicone Remover 220 Low VOC.

SPECIAL TIPS

- Adjacent blend panels may be required for proper blend transition.
- Create a let-down panel to establish # of tinted mid coats needed for color match



SPRAY GUN SETUP: PERMAHYD® HI-TEC ground coat and mid coat

HVLP: 1.2mm - 1.3mm
Approved Transfer Efficiency 1.2mm - 1.3mm

AIR PRESSURE

HVLP 10 psi at the air cap
Approved Transfer Efficiency 27-29 psi for high pressure spray guns
18-20 psi for low pressure spray guns

SPRAY GUN SETUP: Permacron® Transparent Midcoat 9100

HVLP: 1.3 mm-1.4 mm
Compliant: 1.3 mm-1.4 mm

AIR PRESSURE*

HVLP: 8-9 psi at cap
Compliant: 18-22 psi

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

Preparation and Application Procedure:

STEP ONE:

GROUND COAT

1. Apply Permahyd Hi-TEC 1050, 1051 Blend in Additive to the blend area using the standard closed coat technique. Do not allow to flash off.
2. Apply ground coat to hiding (2 ½ coats over appropriate UG shade) and blend into the repair panels and allow to flash fully.

STEP TWO:

MID COAT

Mix the Permahyd Hi-TEC mid coat per weight formula or prepare Permahyd Hi-TEC mid coat in the following ratio:

	<u>Ratio:</u>
Permahyd Hi-TEC Base Coat (Not RTS color)	1 part
Permahyd® Hi-TEC 6054 Effect Control	3 parts

1. Using a non-wetted mist coat application apply 1st coat of Effect Coat into the widest area just beyond the ground coat first.
2. Gun distance should be maintained at 12 -15 inch (30-38 cm) off the substrate.
3. Allow to flash off 2-3 minutes.
4. Tack off (non-sticky tack cloth) as needed.
5. Repeat steps 1-4 blending within the first coat.
6. Two non-wetted mist coats are required for color match.
7. Flash off 20-30 minutes until matt and then tack prior to Permacron® Transparent Midcoat 9100

SPECIAL TIPS

- Do not over apply the mist coats; any wetted region will create uneven flake appearance.
- Complete flash between mist coats is critical.

STEP THREE:

TINTED MID COAT

1. Prepare a let-down panel to verify color match and number of coats of tinted mid coat needed to achieve color match.
2. Apply a tack coat over the entire repair area and allow to flash approximately 1 minute.
3. Apply the first coat of Permacron® Transparent Midcoat 9100 over the blended basecoat.
4. Extend each coat until color match determined by let-down panel is achieved.
5. Flash 3 – 5 minutes between coats
6. Allow tinted mid coat to fully flash approximately 20 - 30 minutes prior to clearcoat application.

Tips for Success:

Do not extend the Permacron® Transparent Midcoat 9100 to the end of the blend panel.

STEP FOUR:

CLEARCOAT

- After allowing to dry completely, approximately 20 - 30 minutes, Permacron® 2k or Permasolid® HS clear coats may be applied
- Refer to the clearcoat TDS for curing times and baking temperatures



DRY TIMES

AIR DRYING

Dust free: 20 to 30 minutes at 68°F/ 20°C

FORCE DRYING

10 minutes at 140°F / 60°C metal temperature. Allow to cool 10-15 minutes.

INFRARED DRYING

IR medium wave:	Approximately 4 minutes
IR short wave approx.:	Approximately 3 minutes
Cool down time:	Approximately 5 minutes

RECOAT

After flash off, within 24 hours

TOPCOAT

Activated or un-activated Permahyd® Hi-TEC must be clear coated within 24 hours



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.

Any analytical results set forth herein do not constitute a warranty of specific product features or of the product's suitability for a specific purpose. All products are sold pursuant to our general conditions of sale. We hereby disclaim all warranties and representations, express or implied, with respect to this product, including any warranty of merchantability or fitness for a particular purpose. This product is protected by patent law, trademark law, copyright law, international treaties and/or other applicable law. All rights reserved. Unauthorized sale, manufacturing or use may result in civil and criminal penalties.

Revised: March 2024