



Permahyd® Hi-TEC Basecoat 480



GENERAL

DESCRIPTION

Permahyd® Hi-TEC basecoat 480 is an innovative waterborne base coat that is fast, versatile, and simple to blend. Hi-TEC provides a one visit application with coverage in 1.5 coats. It is not necessary to flash between coats of basecoat, so processing time is minimized. All Hi-TEC color formulas VOC at spray are less than 420 g/l(3.5 lb/gal). Hi-TEC is excellent for spot, panel, or overall repairs, delivering results to satisfy the most critical repair.

STORAGE

Store free of frost! Permahyd® Hi-TEC products should be stored at temperatures between 42°F / 5°C and 95°F / 35°C. Storing product above or below this temperature range will negatively impact product quality. Optimum Storage for maximum shelf life should be at 68°F / 20°C. Shipping guidelines are between 32°F / 0°C and 122°F / 40°C for up to 5 days in transit.

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

COMPONENTS

Products	Packages	Shelf Life at 20°C
Permahyd® Hi-TEC WT311 - WT393 Mixing Colors	0.5-1 Liter	4 years
Permahyd® Hi-TEC WT331 Translucent Oxide	0.5 Liter	2 years
Permahyd® Hi-TEC WT1500 Ultra Deep Black	1.0 Liter	2 years
Permahyd® Hi-TEC WT364 - WT383 Pearl	0.5 Liter	3 years
Permahyd® Hi-TEC WT Aluminum Metallic	0.5-1 Liter	2 years
Permahyd® Hi-TEC WT385 System Component A	3.5 Liter	2 years
Permahyd® Hi-TEC WT387 System Component B	3.5 Liter	2 years
Permahyd® Hi-TEC WT Additive 6050	3.5 Liter	2 years
Permahyd® Hi-TEC WT Additive 6052	3.5 Liter	2 years
Permahyd® Hi-TEC WT Additive 6053	3.5 Liter	2 years
Permahyd® Hi-TEC 1050 Blend in Additive	3.5 Liter	2 years
Permahyd® Hi-TEC 1051 Special Blend in Additive	3.5 Liter	2 years
Permahyd® Hi-TEC 1053 Blend in Additive Retarder	1.0 Liter	5 years
Permahyd® Hi-TEC 3080 Hardener Additive	0.5 Liter	2 years
Permahyd® Hi-TEC WT394-WT399 Special Effect LUT	0.5 Liter	2 years
Permahyd® Hi-TEC WT301, WT302, WT312, WT392	0.5 Liter	2 years
Permahyd® VE Water 6000	5.0 Liter	3 years

- 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



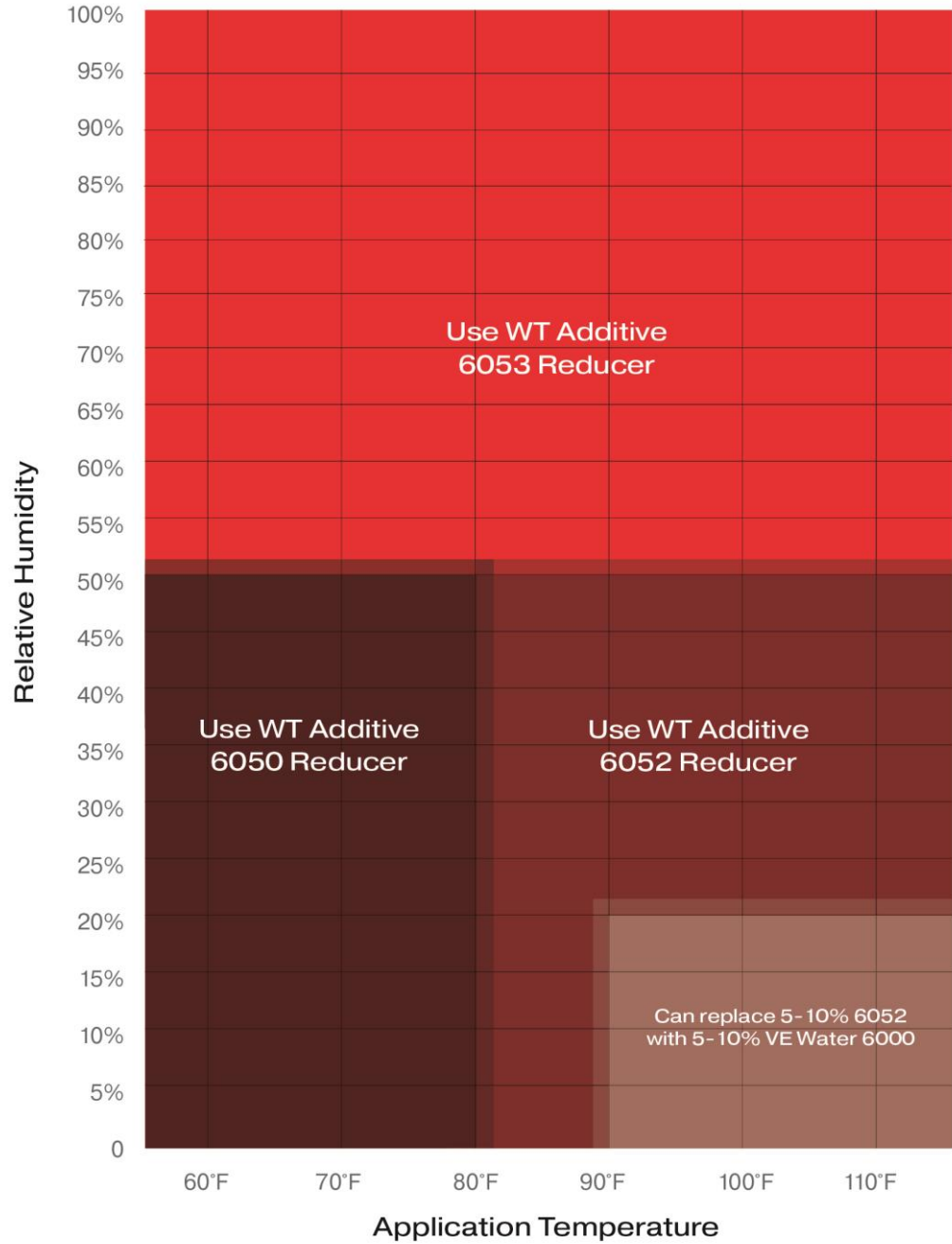
MIXING

COMPONENTS

- Permahyd® Hi-TEC Basecoat 480
- Permahyd® Hi-TEC WT Additive 6050
- Permahyd® Hi-TEC WT Additive 6052 – For temperatures above 80°F
- Permahyd® Hi-TEC WT Additive 6053 – For relative humidity above 50%



REDUCER SELECTION GUIDE





MIX RATIO

Solid Colors	Volume	
Permahyd® Hi-TEC Base Coat 480	1	
Permahyd® Hi-TEC WT Additive 6050,6052,6053		10-20%

Metallic / Pearl Colors	Volume	
Permahyd® Hi-TEC Base Coat 480	1	
Permahyd® Hi-TEC WT Additive 6050,6052,6053		20-30%

For three-stage and two-tone colors, add 5% Permahyd® Hardener 3080 to the basecoat (Use in Ground Coat only). Do not use Permahyd® Hardener 3080 with WT388 Black. Hardener reduces the pot life of Permahyd® Hi-TEC Base Coat 480 to 45-90 minutes depending on temperature.

For under hood colors, add 10% Permahyd® Hardener 3080. Pot life for under hood color is 20 minutes. Refer to reducer chart for temperatures above 80°F. More reducer may be used in extreme conditions.

APPLICATION VISCOSITY

As mixed

POT LIFE

Metallic colors have a 2-4 hour pot life after of mixing with Hi-TEC® WT Additive 6050, Hi-TEC® WT Additive Special Reducer 6052 or Hi-TEC® WT Additive High Humidity Reducer 6053. Afterwards it must be reduced again at same ratio for best metallic control. Solids and pearls have extended pot life after reduction (approximately 3-6 months).



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

SURFACE PREPARATION:

Degrease and sand.
 Before further treatment, clean all substrates thoroughly with Permaloid® Silicone Removers 7087 or 7010 Slow, Permahyd® Silicone Remover 7085, Permahyd® or Permahyd® Silicone Remover 7096.

*Permahyd® Silicone Remover 7085, or Permahyd® Silicone Remover 7096 must be used for final cleaning.

GUN SETUP

HVLP:	1.3 (1.4mm for hot, dry weather)
Approved Transfer Efficiency	1.2 (1.3mm for hot, dry weather)

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

APPLICATION

1 full coat 6 to 10 inches from the surface followed by 1/2 coat 10 to 14 inches from surface for metallic orientation. Keep overlap at 75% or more during entire process. Base coat must be clear coated within three days.

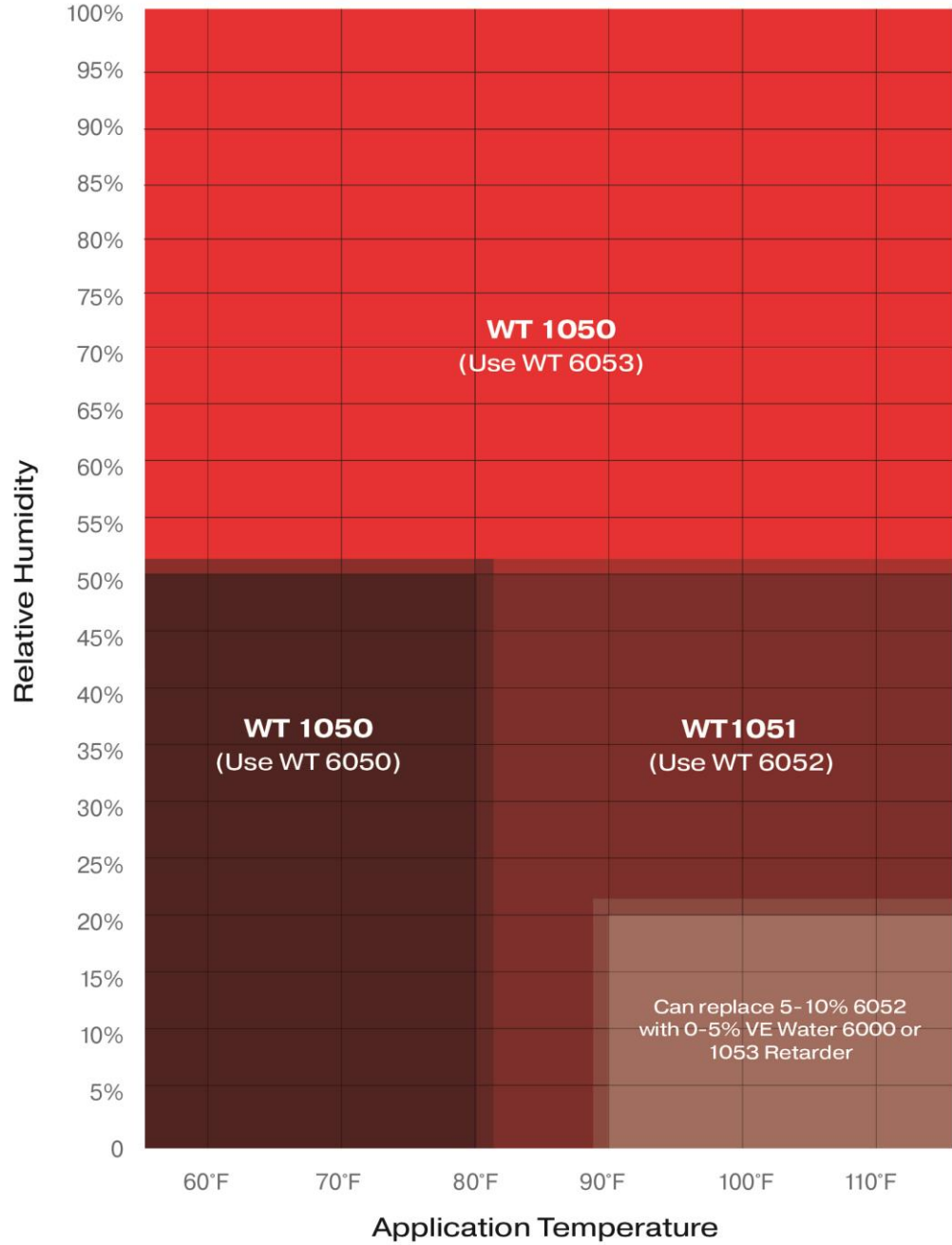
Low opacity colors may require one or two additional coats after an appropriate flash-off time.

Flash-off and drying times depend on the temperature, humidity, and air flow in the booth, and on the number of coats. The surface must in all cases be allowed to matte completely.

- Small areas: Surface matting can be accelerated by heat and additional air flow. It is also possible to blow with the spray gun after a waiting time of at least 5 minutes.
- Large areas: Surface matting can be accelerated by using infrared, or low baking.



BLENDER ADDITIVE SELECTION GUIDE





Preparation and application of solid and metallic colors

1. Sand Surfacers (dry with P500-800 or wet sand with P600-1000).
2. Use a fine sanding pad, 3M 07745 (gold) for hard to reach areas, prior to preparation of blend area. Thoroughly sand surrounding area with P1000 dry, with a dual action sander and proper backing pad. It is possible to wet sand utilizing P1200 – 1500 grit.
3. Wash the entire area with Permahyd® Silicone Remover 7085 or Permahyd® Silicone Remover 7096.
4. Apply 1 coat of Permahyd® Blending Additive 1050 or Permahyd® Blending Additive 1051 to the surrounding blend area. See chart above for blender selection.
5. Apply Permahyd® Hi-TEC Base Coat 480 to completely cover the surface area, overlapping slightly onto the original finish at ready to spray viscosity.
6. After approximately 15 minutes (or when surface has completely matted) Permacron® 2K Clear Coat, Permacron® 2.1 Clear Coat or Permasolid® HS Clear Coat may be applied.
7. Use of Hi-TEC® WT Additive Special Reducer 6052 is recommended when relative humidity is below 30% and extreme conditions.
8. In very hot conditions Permahyd® Hi-TEC 1053 Blend in Additive Retarder can be added at 5% of the Blend-in Additive. Alternatively 5% VE Water 6000 can be added to the Blend-in Additive in Hot and Dry conditions.

Three stage pearl colors:

1. Apply Permahyd® Hi-TEC Base Coat 480 (ground color) to completely cover the surfaced area, overlapping slightly onto the original finish. Allow ground coat to flash-off.
2. Apply 1 ½ -2 coats of ready to spray Permahyd® Hi-TEC Base Coat 480 (mid coat color) slightly overlapping this area, staggering each coat, with no flash time, so that it matches the original finish.

High metallic colors (Any formula which the color components contain 50% or more of metallic, not including system component A or system component B):

Mix unreduced basecoat 4 parts color to 1 part Permahyd® Hi-TEC 1050 Blender. Then reduce 25% with Hi-TEC WT Additive Special Reducer 6052 or Hi-TEC WT Additive High Humidity Reducer 6053. Please see reducer chart above. Use this mixture for the entire repair.

1. Apply 1 to 1 1/2 coats of 1050, or 1051 Blender @ 22-26 psi. Up to 10% Hi-TEC® WT Additive 6050, Hi-TEC® WT Additive Special Reducer 6052 or Hi-TEC WT Additive High Humidity Reducer 6053. Please see reducer and blender charts above.
2. Apply blender to the entire panel with the exception of surfacer area. Use a 4 to 6 inch distance and fast strokes. Work from bottom of panel to top then top down.
3. Do not allow 1050 or 1051 Blender to flash.

Blending The Base Coat

Apply color to the blend area first, using 3 control coats at 10-14 inches from the panel. Use 26-28 psi and a 75% overlap throughout the entire repair.

1. Use an outside-in approach. Extend the first coat furthest, then each subsequent coat should be inside the previous coat. A “motorcycle wrist” action helps fade the color.
2. A diagonal blend helps produce the most undetectable repair.
3. Apply color to the surfacer (repair) area with a 1 ½ coat application. (1 full coat at 6-10 inches, followed by an orientation coat at around 12 inch distance – higher humidity = further distance)
4. Keep a 75% or more overlap during the entire process.

For information on spray equipment please see Technical Data Sheet No. 905.1. Information on cleaning of equipment and waste management can be found in Technical Data Sheet Nos. 905.0 and 905.2 respectively



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



PHYSICAL PROPERTIES

Coating Category: Color Coating (Solid w/ 20% WT Special Additive)

Max. VOC (AP): 69 g/l; 0.6 lbs/gal
 Max. VOC (LE): 236 g/l; 2.0 lbs/gal
 Avg. Gallon Weight: 1086 g/l; 9.0 lbs/gal
 Avg. Weight % Volatiles: 75.3%
 Avg. Weight % Water 68.7%
 Avg. Weight % Exempt Solvent: 0.9%
 Avg. Volume % Water: 74.0%
 Avg. Volume % Exempt Solvent: 1.2%

Coating Category: Color Coating (Effect w/ 30% WT Special Additive)

Max. VOC (AP): 132 g/l; 1.1 lbs/gal
 Max. VOC (LE): 416 g/l; 3.5 lbs/gal
 Avg. Gallon Weight: 1031 g/l; 8.6 lbs/gal
 Avg. Weight % Volatiles: 80.1%
 Avg. Weight % Water 70.1%
 Avg. Weight % Exempt Solvent: 1.2%
 Avg. Volume % Water: 72.1%
 Avg. Volume % Exempt Solvent: 1.5%

Coating Category: Color Coating (Multi- Stage 10% 3080/ 20% WT Additive)

Max. VOC (AP): 89 g/l; 0.7 lbs/gal
 Max. VOC (LE): 259 g/l; 2.2 lbs/gal
 Avg. Gallon Weight: 1086 g/l; 9.1 lbs/gal
 Avg. Weight % Volatiles: 71.6%
 Avg. Weight % Water: 63.7%
 Avg. Weight % Exempt Solvent: 1.1%
 Avg. Volume % Water: 68.3%
 Avg. Volume % Exempt Solvent: 1.1%

Coating Category: Color Coating (Multi- Stage 10% 3080/ 30% WT Additive)

Max. VOC (AP): 146 g/l; 1.2 lbs/gal
 Max. VOC (LE): 397 g/l; 3.3 lbs/gal
 Avg. Gallon Weight: 1083 g/l; 8.6 lbs/gal
 Avg. Weight % Volatiles: 76.3%
 Avg. Weight % Water: 64.9%
 Avg. Weight % Exempt Solvent: 1.1%
 Avg. Volume % Water: 67.0%
 Avg. Volume % Exempt Solvent: 1.1%



Coating Category: Uniform Finish Coating (Effect Blending 30% WT Additive)

Max. VOC (AP): 360 g/l; 3.0 lbs/gal
 Max. VOC (LE): 493 g/l; 4.1 lbs/gal
 Avg. Gallon Weight: 1036.8 g/l; 8.6 lbs/gal
 Avg. Weight % Volatiles: 61.4%
 Avg. Weight % Water: 26.3%
 Avg. Weight % Exempt Solvent: 0.3%
 Avg. Volume % Water: 26.6%
 Avg. Volume % Exempt Solvent: 0.4%

Theoretical Coverage:

	Rec. Film Build	Coverage at Recommended Film Build
Solids	1.0-1.5 mil	300-500 square feet per gallon
Pearls	0.5 – 0.8 mil	400-600 square feet per gallon
Metallics	0.4-0.6 mil	450-650 square feet per gallon

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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