Permacron®
MS Clear Coat 8180

GENERAL

DESCRIPTION
A 5.0 lb/gal (600 g/l) VOC compliant, high gloss clear coat from our “2K-Acryl-System” designed for panel and overall repairs that performs well in low air flow, air dry, and low bake environments. Its fast setting and through drying result in both time and cost savings for all production applications. The versatility of this product enables application in either one operation or two coats.

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

MIXING

COMPONENTS
Permacron® MS Clear Coat 8180

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 HS 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 TDS # 061 or 3220-3245.

REDUCERS
Permacron® Dura Plus 8580,
Permacron® Reducer 3363 Medium
Permacron® Reducer 3365 Slow, or
Permasolid® Accelerator 9025

For optimum reducer selection, refer to TDS #780.0.

ADDITIVES
Permasolid® Elastic Additive 9050

MIX RATIO
PERMASOLID HS HARDENERS
Component Volume
8180 2
3307 / 3309 / 3310 / 3315 / 3320 / 3325 1
ELASTIC CLEAR - PERMASOLID HS HARDENERS
Component | Volume
--- | ---
8180 | 2
9050 | +15-30%
3307 / 3309 / 3310 / 3315 / 3320 / 3325 | 1

PERMASOLID VHS HARDENERS
Component | Volume
--- | ---
8180 | 3
3220 / 3230 / 3240 / 3245 | 1
8580 / 3363 / 3365 / 9025 | +10%

ELASTIC CLEAR - PERMASOLID VHS HARDENERS
Component | Volume
--- | ---
8180 | 3
9050 | +15-30%
3220 / 3230 / 3240 / 3245 | 1
8580 / 3363 / 3365 / 9025 | +10%

SPECIAL TIPS
1. Using fast or express hardeners (HS: 3307, 3309, or 3310; VHS: 3220) can speed up the dry time of the Permacron® MS Clear Coat 8180 significantly especially when Permasolid® Accelerator 9025 is also being used. Fast or express hardeners should be used when spraying cut-ins and small parts or a single panel and/or in extreme cold conditions.
2. Medium hardeners (HS: 3315; VHS: 3230) should be used when repairing bumpers and/or 2 to 3 exterior panels.
3. Slow hardeners (HS: 3320 or 3325; VHS: 3240 or 3245) should be used when spraying large exterior panels, a complete repair, and/or in extreme hot conditions.

APPLICATION VISCOSITY
Approximately 16-18 seconds at 68°F/20°C, DIN 4

POT LIFE
Approximately 1-1.5 hours at 68°F/20°C when ready to spray.

APPLICATION SUBSTRATES
Permacron® Base Coat Series 293/295
Permahyd® Hi-TEC 480
Fully cured OEM or existing topcoat (non-reversible)

SPRAYGUN SETUP
HVLP | 1.3-1.4mm
Approved Transfer Efficiency | 1.2-1.3mm

Please refer to gun manufacturer and local legislation for proper spray pressure recommendations.
APPLICATION
• Option 1: Apply 1 medium coat followed by 1 full coat without intermediate flash-off.
• Option 2: Apply 2 coats with approx. 5 to 10 minutes intermediate flash-off between coats.

RECOMMENDED FILM THICKNESS
2.0-2.5 mil dry film thickness

DRY TIMES

AIR DRYING
Drying time at 68°F/20°C:
Dust free: 30 minutes
Dry for assembly: 4 to 5 hours
Dry through: 12 hours

LOW BAKE
Flash-off time: 5 to 10 minutes
Drying time at 140°F/60°C metal temp.: 20 to 30 minutes

INFRARED DRYING
Flash-off time: 5 to 10 minutes
1. Short wave: Approximately 8-12 minutes
   2. Medium wave: Approximately 12-14 minutes

PHYSICAL PROPERTIES

Coating Category: Clear Coating (HS Hardeners)
Max. VOC (AP): 503 g/l; 4.2 lbs/gal
Max. VOC (LE): 503 g/l; 4.2 lbs/gal
Avg. Gallon Weight: 993.1 g/l; 8.29 lbs/gal
Avg. Weight % Volatiles: 51.1%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 0.0%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 0.0%
Theoretical Coverage: 689.6 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 276–345 sq. ft.

Coating Category: Clear Coating (VHS Hardeners)
Max. VOC (AP): 491 g/l; 4.1 lbs/gal
Max. VOC (LE): 491 g/l; 4.1 lbs/gal
Avg. Gallon Weight: 991.5 g/l; 8.27 lbs/gal
Avg. Weight % Volatiles: 50.2%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 0.0%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 0.0%
Theoretical Coverage: 702.7 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 281–351 sq. ft.

Coating Category: Clear Coating (Elastic HS Hardeners)
Max. VOC (AP): 467 g/l; 3.9 lbs/gal
Max. VOC (LE): 467 g/l; 3.9 lbs/gal
Avg. Gallon Weight: 1013.1 g/l; 8.45 lbs/gal
Avg. Weight % Volatiles: 45.9%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 0.0%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 0.0%

Theoretical Coverage: 769.7 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 308 - 385 sq. ft.

Coating Category: Clear Coating (Elastic VHS Hardeners)
- Max. VOC (AP): 455 g/l; 3.8 lbs/gal
- Max. VOC (LE): 455 g/l; 3.8 lbs/gal
- Avg. Gallon Weight: 1013.7 g/l; 8.46 lbs/gal
- Avg. Weight % Volatiles: 44.7%
- Avg. Weight % Water: 0.0%
- Avg. Weight % Exempt Solvent: 0.0%
- Avg. Volume % Water: 0.0%
- Avg. Volume % Exempt Solvent: 0.0%

Theoretical Coverage: 786.3 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 315 - 393 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.

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: January 2016