



Protective & Marine Coatings

TT-P-645C PRIMER, ALKYD, F-84

GREEN

N42G110

Revised: July 9, 2014

PRODUCT INFORMATION

9.63

PRODUCT DESCRIPTION

TT-P-645C is an alkyd primer formulated for use as a general primer for applications to steel and aluminum. This product complies with Military Specification TT-P-645C, Formula 84.

PRODUCT CHARACTERISTICS

Finish:	Flat
Color:	Green, Fed Std 595 #34230*
Volume Solids:	41% minimum
Weight Solids:	47% minimum
VOC (EPA Method 24):	<250 g/L; 2.08 lb/gal, maximum

*see Performance Characteristics section

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	4.0 (100)	7.0 (175)
Dry mils (microns)	1.5 (38)	3.0 (75)
~Coverage sq ft/gal (m²/L)	220 (5.4)	440 (10.8)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	656 (16.1)	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 4 mils wet (100 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	8 hours	2 hours	1 hours
To recoat:	10 hours	6 hours	6 hours
To cure:	14 days	14 days	3 days

Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)
Flash Point:	100°F (38°C) SETA Flash
Reducer:	Not recommended
Clean Up:	MAK, R7K134 or Mineral Spirits, R1K4

RECOMMENDED USES

For use on prepared steel and aluminum in marine and industrial environments:

- Marine Vessels - interior and exterior
- Offshore platforms

PERFORMANCE CHARACTERISTICS

- Complies with Military Specification TT-P-645C, Formula 84

<u>Color</u>	<u>Product/Rex Number</u>
Green, Fed Std 595 #34230*	N42G110

*TT-P-645C specification (June 2013) states the color of the paint shall approximately match color chip no. 34230 of FED-STD-595



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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct.	
		Mils	(Microns)
Steel or Aluminum:			
2 cts.	TT-P-645	1.5-3.0	(38-75)
2 cts.	MIL-PRF-24596	2.0-4.0	(50-100)
Steel or Aluminum:			
2 cts.	TT-P-645	1.5-3.0	(38-75)
2 cts.	MIL-DTL-24607	1.5-3.0	(38-75)
Steel or Aluminum:			
2 cts.	TT-P-645	1.5-3.0	(38-75)
1 ct.	MIL-PRF-24635	2.0-3.0	(50-75)

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel: SSPC-SP2
Aluminum: SSPC-SP1

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Rusted	D St 2	D St 2	SP 2	-
Pitted & Rusted	D St 3	D St 3	SP 3	-
Power Tool Cleaning	C St 3	C St 3	SP 3	-
Rusted	D St 3	D St 3	SP 3	-
Pitted & Rusted	D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 100°F (38°C) maximum
(air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 10.9 ± 0.2 lb/gal ; 1.3 kg/L

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



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APPLICATION BULLETIN

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SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

Aluminum

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1.

Previously Painted Surfaces

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 100°F (38°C) maximum
(air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer Not recommended

Clean Up MAK, R7K134 or Mineral Spirits, R1K4

Airless Spray

Pressure..... 1800-3000 psi
Hose..... 1/4" ID
Tip015" - .019"
Filter 60 mesh

Conventional Spray

Gun Binks 95
Fluid Nozzle 63C
Air Nozzle..... 63PB
Atomization Pressure..... 50 psi
Fluid Pressure..... 15-20 psi

Brush

Brush..... Natural Bristle

Roller

Cover 3/8" woven with solvent resistant core

If specific application equipment is not listed above, equivalent equipment may be substituted.

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Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
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Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly with low speed power agitation prior to use.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	4.0 (100)	7.0 (175)
Dry mils (microns)	1.5 (38)	3.0 (75)
~Coverage sq ft/gal (m²/L)	220 (5.4)	440 (10.8)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

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To touch:	8 hours	2 hours	1 hours
To recoat:	10 hours	6 hours	6 hours
To cure:	14 days	14 days	3 days

Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with MAK, R7K134 or Mineral Spirits, R1K4. Clean tools immediately after use with MAK, R7K134 or Mineral Spirits, R1K4. Follow manufacturer's safety recommendations when using any solvent.

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PERFORMANCE TIPS

Stripe coat crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

No reduction of material is recommended as it can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with MAK, R7K134 or Mineral Spirits, R1K4.

Refer to Product Information sheet for additional performance characteristics and properties.

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