



Protective & Marine Coatings

MIL-DTL-15090E AMENDMENT 1 EQUIPMENT ENAMEL, FORMULA 111

LIGHT GRAY

N45A110

Revised: July 3, 2014

PRODUCT INFORMATION

9.62

PRODUCT DESCRIPTION

MIL-DTL-15090E, Amendment 1, Equipment Enamel is a light gray equipment and machinery enamel for marine and industrial use. May be used on equipment such as furniture, machinery, and switchboard installations. This product complies with Military Specification MIL-DTL-15090E, Amendment 1.

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Light Gray, 595C 26307
Volume Solids:	42% ± 2%
Weight Solids:	52% ± 2%
VOC (EPA Method 24):	<250 g/L; 2.09 lb/gal, maximum

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	3.5 (88)	6.0 (150)
Dry mils (microns)	1.5 (38)	2.5 (62)
~Coverage sq ft/gal (m ² /L)	267 (7.0)	450 (11.0)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	672 (16.5)	

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

Drying Schedule @ 3.5 mils wet (88 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
To touch:	12 hours	2 hours	1.5 hours
To recoat:	24 hours	6 hours	5 hours
To cure:	30 days	30 days	6 days

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

Shelf Life:	24 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:	Mineral Spirits, R1K4

RECOMMENDED USES

For use on prepared surfaces in industrial environments:

- General purpose equipment enamel

PERFORMANCE CHARACTERISTICS

- Complies with Military Specification MIL-DTL-15090E, Amendment 1.

Color	Product/Rex Number
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RECOMMENDED SYSTEMS

Dry Film Thickness / ct.
Mils (Microns)

Steel:

1 ct. TT-P-645 1.75-3.5 (45-88)
1-2 cts. MIL-DTL-15090E, Amendment 1 1.5-2.5 (38-62)

Steel:

1 ct. MIL-DTL-24441 3.0-4.0 (75-100)
1-2 cts. MIL-DTL-15090E, Amendment 1 1.5-2.5 (38-62)

Aluminum:

1 ct. TT-P-645 1.75-3.5 (45-88)
1-2 cts. MIL-DTL-15090E, Amendment 1 1.5-2.5 (38-62)

Wood:

1-2 cts. MIL-DTL-15090E, Amendment 1 1.5-2.5 (38-62)

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
- Wood: Clean, smooth, dust free
- * Requires primer

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	D St 3	D 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, 120°F (49°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: 11.0 lb/gal ; 1.3 Kg/L minimum

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

9.62

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.

Wood

Surface must be clean, dry and sound. Remove any oils and dirt from the surface using a degreasing solvent or strong detergent. Sand to remove any loose or deteriorated surface wood and to obtain a proper surface profile.

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°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.

ReducerNot recommended

Clean UpMineral Spirits, R1K4

Airless Spray

Pressure.....2500 psi
Hose.....3/8" ID
Tip015"
Filter 100 mesh

Conventional Spray

GunDeVilbiss MBC-510
Fluid TipE
Fluid NozzleE
Atomization Pressure.....50 psi
Fluid Pressure.....20-25 psi

Brush

Brush.....Natural Bristle

Roller

Cover3/8" woven with solvent resistant core

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

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
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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	-
Power Tool Cleaning	D St 3	D 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)	3.5 (88)	6.0 (150)
Dry mils (microns)	1.5 (38)	2.5 (62)
~Coverage sq ft/gal (m²/L)	267 (7.0)	450 (11.0)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 3.5 mils wet (88 microns):

	@ 50°F/10°C	@ 77°F/25°C	@ 100°F/38°C
		50% RH	
To touch:	12 hours	2 hours	1.5 hours
To recoat:	24 hours	6 hours	5 hours
To cure:	30 days	30 days	6 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 Mineral Spirits, R1K4. Clean tools immediately after use with 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 Mineral Spirits, R1K4.

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

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