RUST-OLEUM® HIGH PERFORMANCE®

7400 SYSTEM DTM 450 VOC ALKYD ENAMEL

DESCRIPTION AND USES

The 7400 System DTM 450 VOC Alkyd Enamels are designed for indoor and outdoor steel surfaces in mild to moderate industrial environments. Excellent resistance to general weathering, salt air, mild chemical fumes and light abrasion. Available in high gloss, semi-gloss, flat, and metallic finishes. Not for use on galvanized steel.

If desired, the 7400 System DTM 450 VOC Alkyd Enamels can be applied direct-to-metal (DTM), however optimal corrosion protection is achieved when the finish coat is used in conjunction with one of the recommended primers.

Semi-gloss finishes are designed for interior and sheltered exterior surfaces only. Metallic finishes #470402 and #473402 may also be used on surfaces subject to heat in the temperature range of up to 350°F (176°C). Use over #X-60402, #3469402 or #7669402 red primers.

The 7400 System complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized.

MPI #9, #48, #81, #94, #96 Certified*

PRODUCTS

HIGH GLOSS FINISHES

1-Gallon	5-Gallon	Description
559402	—	International Orange
634402	634300	High Gloss Black
717402	—	Clear (Clear-Sele®)
721402	721300	National Blue
745402	—	Tile Red
865402	865300	Dunes Tan
866402	—	Marlin Blue
904402	—	Machine Tool Gray
906402	906300	Silver Gray
925402	925300	Safety Blue
933402	—	Safety Green
935402	—	Vista Green
944402	944300	Safety Yellow
956402	—	Safety Orange
964402	—	Safety Red
975402	975300	Navy Gray
977402	—	Chestnut Brown
1210402	1210300	Fire Hydrant Red
1282402	1282300	Forest Green
2766402	2766300	High Gloss White
7434402	7434300	Green (John Deere)
7446402	—	Yellow
7447402	—	Yellow (New Caterpillar)
7448402	—	Yellow (Old Caterpillar)
1030402	—	Green Aluminum

* Refer to the MPI website for the most current listing of MPI certified products.

PRODUCTS (cont.)

SEMI-GLOSS FINISHES

1-Gallon	5-Gallon	Description
7232402	—	Pleasant Green
7280402	—	Light Neutral Gray
7290402	—	Semi-Gloss White

FLAT FINISHES

1-Gallon	5-Gallon	Description
412402	—	Flat Black
2764402	—	Flat White

METALLIC FINISHES

1-Gallon	5-Gallon	Description
470402	—	Aluminum
473402	—	Heavy-Duty Aluminum
1020402	—	Blue Aluminum

TINT BASES†

1-Gallon	5-Gallon	Description
7405408	—	Red
7406408	—	Yellow
7407408	7407388	Masstone
7408411	7408391	Deep
7409418	7409394	Light

†All tint bases are high gloss finishes

COMPANION PRODUCTS

RECOMMENDED PRIMERS

678402	Quick Dry Red Primer
769402	Damp Proof Red Primer
960402	Zinc Chromate Yellow Primer
1060402	Heavy-Duty Rust-Inhibitive Gray Primer
1069402	Heavy-Duty Rust-Inhibitive Red Primer
7069402	Red Shop Coat Primer
7086402	Quick Dry Gray Primer
X0060402	Zinc Chromate Red Primer

COMPATIBLE PRIMERS

1573402	Speedy Dry Enamel Rust-Inhibitive Primer
3202504	Clear-Blue Undercoat
7069402	Red Shop Coat Primer
8469402	Red Rusted Metal Primer
8492402	White Clean Metal Primer

Form: 1022990
Rev.: 103114

PRODUCT APPLICATION

SURFACE PREPARATION

ALL SURFACES: Remove all dirt, grease, oil, salt and chemical contaminants by washing the surface with Pure Strength® Cleaner/Degreaser, item #3599402, commercial detergent or other suitable cleaner. Rinse thoroughly with fresh water and allow to fully dry. All surfaces must be dry at time of application.

STEEL: Hand tool (SSPC-SP-2) or power tool (SSPC-SP-3) clean to remove all loose rust, mill scale, and deteriorated previous coatings. If abrasive blasting cleaning is used, then two coats of recommended primer is required. See the primer Technical Data Sheet for more information.

PREVIOUSLY COATED: Previously coated surfaces must be sound and in good condition. Smooth, hard, or glossy finishes should be scarified by sanding to create a surface profile. The 7400 System Enamels are compatible with most coatings, but a test patch is suggested.

APPLICATION

Apply only when air and surface temperatures are between 32-100°F (0-38°C) and surface temperature is at least 5°F (3°C) above the dew point.

AIR-ATOMIZED SPRAY:

Method	Fluid Tip	Fluid Delivery	Atomization Pressure
Pressure	0.055-0.070	16 oz./min.	25-60 psi
Siphon	0.055-0.070	—	25-60 psi
HVLP (var.)	0.043-0.070	8-14 oz./min.	60-90 psi*

*10 psi max. at tip

AIRLESS SPRAY (HIGH GLOSS):

Pump Ratio	Fluid Pressure	Fluid Tip	Filter Mesh
30:1	1,600-2,400 psi	0.013-0.017	100

AIRLESS SPRAY (ALL OTHERS):

Pump Ratio	Fluid Pressure	Fluid Tip	Filter Mesh
30:1	1,600-2,400 psi	0.013-0.019	60

THINNING

BRUSH/ROLLER: Normally not required.

AIR-ATOMIZED SPRAY: 333402 Thinner: Use up to 15% by volume.

AIRLESS SPRAY: 333402 Thinner: Normally not required. If needed use up to 5% by volume.

CLEAN-UP

633402 Thinner or Mineral Spirits.

PERFORMANCE CHARACTERISTICS

PENCIL HARDNESS

METHOD: ASTM D3363
RESULT: 5B

GLOSS AT 60°

METHOD: ASTM D523
RESULT: High Gloss Finishes 85-100 degrees
Semi-Gloss Finishes 40-65 degrees

CYCLIC PROHESION

Rating 1-10, 10=best

METHOD: ASTM D5894 3 cycles, 1008 hours
RESULT: 10 ASTM D714 for blistering
RESULT: 9 ASTM D610 for rusting

IMPACT RESISTANCE (direct)

METHOD: ASTM D-2794
RESULT: >160

ACCELERATED WEATHERING (% gloss retention)

METHOD: ASTM D4587, QUV Type A bulb, 450 hours
RESULT: 84% Gloss Retention (color-black)

TABER ABRASION

METHOD: ASTM D4060 CS17 wheels 500g load/1000 cycles
RESULT: 61.6 mg loss

For chemical and corrosion resistance see page 4 of the Rust-Oleum Industrial Brands Catalog Form #206275.

RUST-OLEUM HIGH PERFORMANCE

TECHNICAL DATA

7400 SYSTEM DTM 450 VOC ALKYD ENAMEL

PHYSICAL PROPERTIES

		HIGH GLOSS	SEMI-GLOSS	FLAT	METALLIC
Resin Type		Modified Alkyd	Modified Alkyd	Modified Alkyd	Modified Alkyd
Pigment Type		Varies with color	Varies with color	412402 Carbon Black 2764402 Titanium Dioxide	Leafing and Non-leafing Aluminum
Solvents		Aliphatic hydrocarbons	Aliphatic hydrocarbons	Aliphatic hydrocarbons	Aliphatic hydrocarbons
Weight	**Per Gallon**	7.6-8.9 lbs.	9.5-10.2 lbs.	11.2-11.4 lbs.	7.9-8.3 lbs.
	Per Liter	0.9-1.1 kg	1.1-1.2 kg	1.3-1.4 kg	0.9-1.0 kg
Solids	**By Weight**	51-59%	61-65%	70-71%	49-51%
	By Volume	42-43%	43-45%	47-48%	37-39%
Volatile Organic Compounds		<450 g/l (3.75 lbs./gal.)	<450 g/l (3.75 lbs./gal.)	<450 g/l (3.75 lbs./gal.)	<500 g/l (4.2 lbs./gal.)
Recommended Dry Film Thickness (DFT) Per Coat		1.5-2.5 mils† (37.5-62.5µ)	1.5-2.5 mils† (37.5-62.5µ)	1.5-2.5 mils† (37.5-62.5µ)	470402 and 473402 1.0-1.5 mils (25-37.5µ); 1020402 and 1030402 1.5-2.5 mils (37.5-62.5µ)
Wet Film to Achieve DFT (unthinned material)		3.5-6.0 mils (87.5-150µ)	3.5-6.0 mils (87.5-150µ)	3.0-5.5 mils (75-137.5µ)	470402 and 473402 3.0-4.0 mils (75-100µ); 1020402 and 1030402 4.0-6.5 mils (100-162.5µ)
Theoretical Coverage at 1 mil DFT (25µ)		675-690 sq. ft./gal. (16.6-17.0 m²/l)	690-720 sq. ft./gal. (17.0-17.8 m²/l)	755-770 sq. ft./gal. (18.5-18.9 m²/l)	590-625 sq. ft./gal. (13.5-15.4 m²/l)
Practical Coverage at Recommended DFT (assumes 15% material loss)		230-390 sq. ft./gal. (5.7-9.6 m²/l)	235-410 sq. ft./gal. (5.8-10.1 m²/l)	255-435 sq. ft./gal. (6.3-10.7 m²/l)	200-530 sq. ft./gal. (4.9-13.0 m²/l)
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	**Tack-free**	2-4 hours	2-4 hours	2-4 hours	2-4 hours
	Handle	5-9 hours	5-9 hours	5-9 hours	5-9 hours
	Recoat	24 hours	24 hours	24 hours	24 hours
Dry Heat Resistance		212°F (100°C)	212°F (100°C)	212°F (100°C)	350°F (177°C)*; 212°F (100°C)**
Shelf Life		5 years	5 years	5 years	5 years
Safety Information		For additional information, see MSDS			

Calculated values are shown and may vary slightly from the actual manufactured material.

*470402, 473402; **1020402, 1030402;

†If applied over a primer or previously coated steel, a dry film thickness of 1-2 mils (25-50µ) is acceptable, 2-5 mils (50-125µ) wet film thickness.

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