

## DESCRIPTION AND USES

A two component, polyester polyurethane with a super high gloss finish. This coating system has two different activators to meet the specific requirements set by national air quality regulations. The 9401 Activator is used to meet the VOC requirements of the automotive refinishing rule. The 9401 Activator does not meet the VOC requirements for industrial maintenance painting. For industrial maintenance painting, use only the HS9401 Activator which has been formulated to meet the reduced VOC levels established for this market.

When using the 9401 Activator, this highly durable, high gloss enamel is designed for coating mobile equipment used in an aggressive environment. The coating has excellent chemical resistance and excellent color and gloss retention making it ideal for outdoor equipment such as ready-mix concrete trucks, bulk haulers, tank wagons, cranes, and other mobile equipment.

When using the HS9401 Activator, this high performance polyurethane has excellent chemical resistance and excellent color and gloss retention. It is suitable for use in severe coastal, offshore, or chemical environments where both corrosion protection and aesthetics are very important. Ideal for exposed structural steel, tanks, conveyors, and other tough maintenance applications.

## PRODUCTS

### FINISHES

| 1 Gallon  | 5 Gallons            | DESCRIPTION           |
|-----------|----------------------|-----------------------|
| 9410402   | ----                 | Clear                 |
| 9425402   | ----                 | Blue                  |
| 9479402   | ----                 | Black                 |
| 9483402   | ----                 | Gray                  |
| 9492402   | 9492300 <sup>1</sup> | White                 |
| 9465402   | ----                 | Red                   |
| ----      | 254323               | Dunes Tan             |
| 9401402   | 9401300              | Activator             |
| HS9401402 | HS9401300            | High Solids Activator |
| 9402730*  | ----                 | Dry Time Accelerator  |
| 9404730*  | ----                 | Leveling Additive     |

### TINT BASES

| 1 Gallon | 5 Gallons | DESCRIPTION         |
|----------|-----------|---------------------|
| 9405405  | ----      | Red Base            |
| 9406405  | ----      | Yellow Base         |
| 9407405  | ----      | High Gloss Masstone |
| 9408421  | ----      | High Gloss Deep     |
| 9409408  | ----      | High Gloss Light    |

\*Use only with 9401 Activator

<sup>1</sup>Made-to-Order only. Contact Rust-Oleum Customer Service for details.

## PACKAGING

The tint bases are packaged in short filled gallon containers to allow for the addition of colorant.

The Red, Yellow, and Masstone tint bases are short filled to allow for the addition of up to 32 fl. oz. of colorant (16 fl. oz. per activated gallon).

The Deep tint base is short filled to allow for the addition of up to 24 fl. oz. of colorant (12 fl. oz. per activated gallon).

The Light tint base is short filled to allow for the addition of up to 16 fl. oz. of colorant (8 fl. oz. per activated gallon).

When combined with a full gallon of 9401 Activator, tinted finish colors which do not use the maximum amount of colorant will yield less than two full gallons of activated material.

## COMPANION PRODUCTS

### RECOMMENDED PRIMERS

HS9399 Red Epoxy Primer  
 HS9391 Gray Epoxy Primer

### COMPATIBLE PRIMERS

#### If using 9400 Finish with 9401 activator:

2083 Gray Transportation Primer

#### If using 9400 Finish with HS9401 activator:

9100 System DTM Epoxy Mastic, (do not use 9115 aluminum) or 9360 or 9370 High Solids Epoxy Primer

## PRODUCT APPLICATION

### SURFACE PREPARATION

**ALL SURFACES:** If excessive time has elapsed since the primer was applied, remove all dirt, grease, oil, salt and chemical contaminants by washing the surface with Krud Kutter® Original Cleaner Degreaser, commercial detergent or other suitable cleaner.

**NOTE:** Two-component epoxy primers may require light scuff sanding or sweep blasting. Mold and mildew areas must be cleaned with a chlorinated cleaner or bleach solution. Rinse thoroughly with freshwater and allow to fully dry. All surfaces must be dry at time of application.

**STEEL:** Intended for clean steel only. Sand or scarify the surface to optimize adhesion. For optimum corrosion resistance, use HS9369 Red or HS9381 Gray Epoxy Primer as a prime coat. See primer labels and technical data sheet for correct surface preparation and application procedures.

### PRODUCT APPLICATION (cont.)

#### SURFACE PREPARATION (cont.)

**PREVIOUSLY COATED:** Previously coated surfaces must be sound and in good condition. Smooth, hard, or glossy finishes should be scarified by sanding or sweep blasting to create a surface profile. The High Gloss Polyester Urethane is compatible with most coatings, but a test patch is suggested.

**GALVANIZED METAL:** New galvanized steel must be free of grease, oil, or wax surface treatments prior to coating. Solvent wiping may be required.

#### MIXING

Premix base component before adding activator, then combine at a 1:1 ratio by volume and mix together. Short-filled tinted base components are to be mixed with one full gallon of activator.

#### APPLICATION

Apply only when the air temperature is between 32-100°F (0-38°C) and surface temperature is at least 5°F above dew point and less than 120°F (49°C). For best result, air atomized spray is the recommended method of application. Airless spray will produce an acceptable industrial finish. Brush and roller applications generally do not produce an acceptable finish and should be limited to touch up only. The 9404 Leveling Additive is suggested for use with the 9401 Activator. The 9402 Accelerator and 9404 Leveling Additive cannot be used with HS9401 Activator.

#### EQUIPMENT RECOMMENDATIONS

(Comparable equipment also suitable)

**BRUSH:** For touch up only. Use a good quality natural or synthetic bristle brush.

**ROLLER:** For touch up only. Use a good quality lamb's wool or synthetic fiber recommended.

#### AIR-ATOMIZED SPRAY

| Method   | Fluid Tip   | Fluid Delivery | Atomized Pressure |
|----------|-------------|----------------|-------------------|
| Pressure | 0.050-0.070 | 10-16 oz./min. | 25-60 psi         |
| Siphon   | 0.050-0.070 | --             | 25-60 psi         |
| HVLP     | 0.043-0.070 | 8-10 oz./min.  | 10 psi (at tip)   |

#### AIRLESS SPRAY

| Fluid Pressure  | Fluid Tip   | Filter Mesh |
|-----------------|-------------|-------------|
| 1,600-2,400 psi | 0.013-0.017 | 100         |

### PRODUCT APPLICATION (cont.)

#### THINNING

##### With 9401 Activator:

Use the following levels of 190 Thinner to remain within VOC limits: Without additives, do not exceed 15% by volume (19 oz. per activated gallon). With 9402 Accelerator, do not exceed 14% by volume (18 oz. per activated gallon). With 9404 Leveling Additive, do not exceed 15% by volume (19 oz. per activated gallon).

##### With HS9401 Activator:

Use the following levels of 195 Reducer to remain within VOC limits: for airless spray do not exceed 15% by volume (19 oz. per activated gallon); for air atomized spray do not exceed 20% by volume (25 oz. per activated gallon). In order to maintain VOC <420 g/l, do not thin more than 25% by volume with 195 Reducer only.

#### CLEAN-UP

190 Thinner or Methyl Ethyl Ketone (MEK).

### PERFORMANCE CHARACTERISTICS

#### System Tested

Primer: 9100 System DTM Epoxy Mastic

Topcoat: 9400 System High Gloss Polyester Urethane

#### CYCLIC PROHESION

##### Rating 1-10, 10=best

METHOD: ASTM D5894, 5 cycles, 1,680 hours

RESULT: 10 per ASTM D714 for blistering

RESULT: 10 per ASTM D610 for rusting

#### GLOSS (60°)

METHOD: ASTM D523

RESULT: 94% (color-white)

#### ACCELERATED WEATHERING (% gloss retention)

METHOD: ASTM D4587, QUV Type A bulb, 1,500 hours

RESULT: 99% gloss retention (color-white)

All standard colors, tint bases and activators comply with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized. Agriculture Canada accepted: 9425, 9492, 9479, 9410, 9483, and 9465.

Refer to the Rust-Oleum Industrial Brands Catalog (Form #275585) for chemical and corrosion resistance.

|   |  |              |
|---|--|--------------|
| <b>URETHANE</b>   | <b>TECHNICAL DATA</b>  | <b>RO-72</b> |
| <b>RUST-OLEUM®<br/>HIGH PERFORMANCE<br/>INDUSTRIAL COATINGS</b> | <b>RUST-OLEUM® 9400 SYSTEM<br/>HIGH GLOSS POLYESTER URETHANE</b> |              |

### PHYSICAL PROPERTIES

|  |                   | FINISH COLORS†  | TINT BASES†   | FINISH COLORS‡   | TINT BASES‡  |
|--|-------------------|---|---|--|--|
|  |                   | †With 9401 Activator  |   | ‡With HS9401 Activator   |  |
| <b>Resin Type</b>  |                   | Aliphatic isocyanate, converted polyester urethane  |   | Aliphatic isocyanate, converted polyester urethane   |  |
| <b>Solvents</b>  |                   | Xylene, esters and ketones  |   | Xylene, esters and ketones   |  |
| <b>Weight*</b>   | <b>Per Gallon</b> | 8.3-10.3 lbs.   | 8.3-9.8 lbs.  | 8.7-10.5 lbs.  | 8.6-10.2 lbs.  |
|  | <b>Per Liter</b>  | 1.0-1.2 kg  | 1.0-1.2 kg  | 1.0-1.2 kg   | 1.0-1.2 kg   |
| <b>Solids*</b>   | <b>By Weight</b>  | 44-45%, 43% 9410 Clear  | 46-54%  | 61-71%, 60% 9410 Clear   | 62-70%   |
|  | <b>By Volume</b>  | 37-41%, 35% 9410 Clear  | 39-42%  | 54-58%, 43% 9410 Clear   | 55-58%   |
| <b>Volatile Organic Compounds*</b>                                       |                   | <600 g/l (5.0 lbs./gal.)  |   | <420 g/l (3.50 lbs./gal.)  |  |
| <b>Recommended Dry Film (DFT) Per Coat</b>                               |                   | 1-2 mils (25-50µ)<br>0.5-1.0 mils (12.5-25.0µ)<br>9410 Clear  | 1-2 mils (25-50µ)   | 1-2 mils (25-50µ)  | 1-2 mils (25-50µ)  |
| <b>Wet Film to Achieve DFT (unthinned material)</b>                      |                   | 3-5 mils (75-125µ)<br>1.5-2.5 mils (37.5-62.5µ)<br>9410 Clear   | 2.5-5.0 mils<br>(62.5-125µ)   | 2.0-4.0 mils<br>(50-100µ)  | 2.0-3.5 mils<br>(50-87.5µ)   |
| <b>Practical Coverage at Recommended DFT (assumes 15% material loss)</b> |                   | 260-560 sq. ft./gal.<br>(6.4-13.8 m <sup>2</sup> /l)<br>480-950 sq. ft./gal.<br>(11.8-23.4 m <sup>2</sup> /l) 9410 Clear  | 265-570 sq. ft./gal.<br>(6.5-14.0 m <sup>2</sup> /l)                      | 370-790 sq. ft./gal.<br>(9.1-19.4 m <sup>2</sup> /l)   | 375-790 sq. ft./gal.<br>(9.2-19.4 m <sup>2</sup> /l)                           |
| <b>Mixing Ratio</b>  |                   | 1:1 Activator to Base<br>(by volume)  | One full gallon of<br>9401 Activator per unit of<br>tinted base component | 1:1 Activator to Base<br>(by volume)   | One full gallon of<br>HS9401 Activator per<br>unit of tinted base<br>component |
| <b>Induction Period</b>  |                   | None required   | None required   | None required  | None required  |
| <b>Pot Life @ 70-80°F (21-27°C) &amp; 50% Relative Humidity</b>          |                   | 8-16 hours  | 8-16 hours  | 2-4 hours  | 2-4 hours  |
| <b>Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity</b>          | <b>Tack-free</b>  | 2-4 hours   | 2-4 hours   | 2-4 hours  | 2-4 hours  |
|  | <b>Handle</b>     | 4-6 hours   | 4-6 hours   | 6-8 hours  | 6-8 hours  |
|  | <b>Recoat</b>     | 9400 Finishes after 16 hours;<br>Over HS9360 or HS9381, ½-72 hours; Over 2083, ½ hour   |   | 9400 Finishes after 16 hours; Over HS9360 or HS9381,<br>½-72 hours; Over 9100 Finishes, 16 hours-14 days. Over<br>HS Epoxy Primers, 16 hours - 14 days. Over 2068 or<br>2082 after 1 hour. |  |
| <b>Force Cure</b>  |                   | 15-20 minutes at 150-225°F (66-105°C)<br>Dry to handle after cooling.   |   | 15-20 minutes at 150-225°F (66-105°C)<br>Dry to handle after cooling.  |  |
| <b>Dry Heat Resistance</b>   |                   | 300°F (149°C). A color shift may occur at<br>temperatures above 150°F (66°C)  |   | 300°F (149°C). A color shift may occur at<br>temperatures above 150°F (66°C)   |  |
| <b>Shelf Life</b>  |                   | 2 years. Opened 9401 Activator must be used within 2-4<br>weeks. Do not use opened activator if it has become cloudy.   |   | 2 years. Opened HS9401 Activator must be used within<br>2-4 weeks. Do not use opened activator if it has become<br>cloudy.   |  |
| <b>Flash Point</b>   |                   | Base: 50°F (10°C); 9401 Activator:90°F (32°C)   |   | Base: 50°F (10°C); HS9401 Activator:84°F (29°C)  |  |
| <b>Safety Information</b>  | <b>Warning!</b>   | <b>FLAMMABLE. VAPOR HARMFUL IF INHALED MAY AFFECT BRAIN OR NERVOUSSYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES NOSE, THROAT, EYE AND SKIN IRRITATION. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. SEE THE PRODUCT SAFETY DATA SHEET (SDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.</b> |   |  |  |

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

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