



Product Data

## Rustilo™ Aqua 639

High performance aqueous corrosion preventive

### Description

Castrol Rustilo™ Aqua 639 (previously called Aquasafe™ 639) is a water-based, wax emulsion with outstanding adhesion and durability on various substrates.

It dries in about 15 minutes to a satiny film, without losing its wax characteristics or lubricity. It can be used over lightly oiled surfaces and will dry to a tack-free surface.

### Application

Rustilo Aqua 639 provides a temporary protective coating to help preventing corrosion during storage and shipment of parts.

It is recommended for metal surfaces, i.e. aluminum, steel, stainless steel, copper, and galvanized and plated metals, where a waxy coating can be employed to give effective exterior or interior rust protection.

Recommended Applications:

- Use as a torque reduction and corrosion resistant lubricant on various fasteners
- Use as a corrosion preventive and decorative coating on cast iron
- Use as an anti-graffiti coating over various surfaces including vinyl, rubber, plastic, painted surfaces, metal, and other surfaces.
- Provides a dry, imperceptible barrier film over various surfaces. Graffiti adheres to the barrier film of Aquasafe 639 and not to the coated surface.
- Commonly used as a nonflammable, dry film lubricant and corrosion preventive on electrical connectors, pins, screws, and other electrical components. Does not inhibit the flow of electricity in electrical connectors.
- Excellent release properties make it capable of being used as a mold release agent for flexible or rigid forms.
- Rustilo Aqua 639 can be applied by almost any commercial method—flow coat, immersion, wipe, or spray.

### Advantages

- Can be applied over lightly oiled surfaces, eliminates the need for washing.
- Dries to a tack-free finish, does not attract or hold dust.
- Outstanding adhesion and durability for excellent protection and wearability.
- Excellent corrosion control.
- Superior dry film lubrication.
- Enhances appearance of most surfaces to promote customer satisfaction.
- Effective on a wide variety of substrates allowing for one product for many applications.
- Nonflammable for safety and VOC compliance.
- Provides medium gloss dry film (buffable).
- Easy to apply, liquid at ambient temperatures.
- Easily diluted and mixed with water.
- Excellent coverage.
- Easy to remove with alkaline cleaners.

## Typical Characteristics

| Description               | Test Method         | Unit     | Rustilo Aqua 639    |
|---------------------------|---------------------|----------|---------------------|
| Appearance of Concentrate | Visual              | -        | Tan coloured liquid |
| Appearance of Film        | Visual              | -        | Clear Satin         |
| pH of Concentrate @ 100%  | ASTM E70/97         | -        | 9.5                 |
| Viscosity @100°F (38°C )  | -                   | cP       | 17                  |
| Specific Gravity 15°C     | -                   | g/ml     | 8.4                 |
| % Solids                  | -                   | -        | 24                  |
| Softening Point           | -                   | °C/°F    | 68°C / 155°F        |
| Temperature Stability     | -                   | °C/°F    | 4-38 / 40-100       |
| Coverage                  | -                   | ft²/gal  | 2,400               |
| Film Thickness            | -                   | in       | 0.2                 |
| Flexibility               | O-T bend            | -        | Pass                |
| 5% Salt Fog               | CR Steel            | 12 hours | Pass                |
| Exterior Durability       | Horizontal CR Steel | month    | 3 - 6               |
| Drying Time               | -                   | min      | 15                  |

Subject to usual manufacturing tolerances.

## Recommended Concentrations

Working dilutions of Rustilo Aqua 639 should be determined by the end user.

Rustilo Aqua 639 may be diluted with water, which will result in thinner films and reduced durability.

Rustilo Aqua 639 water emulsion protective coating can be diluted with tap water. However, if local water is very hard, dilute Rustilo Aqua 639 with deionized water.

## User Advice

Rustilo Aqua 639 can be used to coat lightly oiled metal surfaces and will dry to a tack-free surface. Test a sample part to determine adhesion and film-forming properties when applying over lightly oiled or uncleaned surfaces. Since there are various types of oils, we recommend such a pretest for compatibility.

Drying time depends upon temperature, humidity and air flow. At 75°F (24°C) and 45% relative humidity, Rustilo Aqua 639 dries to the touch in about 15 minutes when applied at full strength. Forced warm air and/or dilution will decrease the drying time.

## Additional Information

### Test Data for ASTM D2247-68

Humidity Cabinet, 100% - 100°F (38°C)

| Concentration | Cold Roll Steel/hrs | Iron Phosphate | Zinc Phosphate/hrs |
|---------------|---------------------|----------------|--------------------|
| 100%          | 440                 | 400            | 400                |
| 80%           | 440                 | 400            | 360                |
| 67%           | 440                 | 360            | 120                |

### Test Data for ASTM B117-73

Salt Fog 5% Salt, 100% - 100°F (38°C)

| Concentration | Cold Roll Steel/hrs | Iron Phosphate | Zinc Phosphate/hrs |
|---------------|---------------------|----------------|--------------------|
| 100%          | 12                  | >12            | 24                 |
| 80%           | 8                   | 8              | 24                 |
| 67%           | 6                   | 6              | 18                 |

## Storage

To avoid product deterioration always keep the container/drum tightly sealed. Store the product in a cool, dry place away from direct sunlight. Prevent exposure to frost and avoid water ingress. For optimum product stability, it is preferable to store the product indoors between 5°C and 38 °C / 41°F and 100°F.

For more details, please refer the product safety data sheet.

**This product was previously called Aquasafe 639. The name was changed in 2015**

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