

# TRIANGLE INDUSTRIAL

## AquaGuard™

Water Based, Silicone Alkyd Top Coat

### SPECIFICATIONS

#### DESCRIPTION:

**AquaGuard™** is a high performance silicone alkyd that meets government specifications for silicone content. This product exhibits better gloss, gloss retention, hardness, and adhesion than standard alkyds.

**AquaGuard™** is a high performance top coat for:

- iron
- steel
- galvanized, primed
- aluminum, primed
- wood, primed

#### USE:

**AquaGuard™** uses include:

- exterior structures, ferrous and nonferrous
- power line towers
- microwave towers
- metal buildings
- structural steel components
- large fabricated structures
- exterior surfaces of steel tanks & piping

#### COLOR AVAILABILITY:

**AquaGuard™** is available in factory colors; refer to Triangle Industrial Products color card. Custom colors available; 100 gallon minimum order is required. Special costing will be applied.

#### ORDER CODE:

**AquaGuard™** ..... 10 + gloss + color  
Individual products are identified by the product series number, followed by a gloss identifier and color number.

#### PACKAGING:

##### Part A:

- 1 gallon cans
- 5 gallon pails
- 55 gallon drums

**KITS:** Kits are not available for this product.

#### ADVANTAGES:

- Excellent gloss retention
- Withstands peak metal temperatures of 350° F
- Very good adhesion to properly prepared substrates
- Contains no lead or chromate
- Water cleanup

#### LIMITATIONS:

- Not for use in submersion applications
- Priming required for nonferrous and galvanized substrates
- For DTM applications, zinc or iron phosphate conversion coating is recommended

### PROPERTIES

#### DRY SCHEDULE: [at 50% RH and 2.0 mil DFT]

	60° F	77° F	90° F
<b>Dry to Touch</b>	90 mins	45 mins	30 mins
<b>Recoat</b>	< 2 hrs	< 60 mins	< 30 mins
<b>Dry to Handle</b>	4 hrs	2 hrs	90 mins
<b>Full Cure</b>	96 hrs	72 hrs	36 hrs

**Critical Recoat Window:** At 77° F, first coat must be recoated in less than 60 mins or after 8 hours.

**VOC:** [as supplied] ..... 2.10 lbs/gal (250 g/l)

**VOC:** [excluding exempt materials] ..... 0.95 lbs/gal (113 g/l)

**FLASH POINT:** [setaflash] ..... 150° F (65.6° C)

**WEIGHT PER GALLON:** ..... 10.5 lbs (4.76 kg/l)

#### PACKAGE VISCOSITY:

#3 Zahn Seconds ..... 25-30

#### SOLIDS: [average]

% By Weight ..... 48 ± 2%

% By Volume ..... 31 ± 2%

#### COVERAGE: [average]

Theoretical at 1.5 mil DFT ..... 332 sq ft/gal

#### REQUIRED FILM THICKNESS:

ASTM D1005 Minimum Dried Film ..... 1.5 mil (38µ)

ASTM D4414 Minimum Wet Film ..... 4.85 mil (123µ)

#### ASTM D523 GLOSS:

@ 60° ..... 85-88

@ 20° ..... 70-80

#### ASTM D3363 PENCIL HARDNESS:

H ..... Pass

#### ASTM D5402 MEK RUBS:

10 Double ..... Pass

#### ASTM D2794 IMPACT RESISTANCE:

40 inlb forward, 40 inlb reverse ..... Pass

#### ASTM B117 SALT SPRAY RESISTANCE:

5% Salt Spray, 200 hours ..... 1/8", Pass

#### ASTM D5894UV CORROSION WEATHERING:

ASTM D610 Rusting 7 cycles, 150 hours ..... Pass

ASTM D714 Blistering 7 cycles, 150 hours ..... Pass

#### ASTM D4587/D523/D4214 QUV-UVA:

500 hours @ 60° ..... < 0.5 ΔE, Pass

2000 hours @ 60° ..... < 1.5 ΔE, Pass

#### ASTM D2247/D714 HUMIDITY RESISTANCE:

400 hours [unscribed] ..... Pass

#### ASTM D4585 MOISTURE CONDENSATION:

100° F, 400 hours ..... Pass

#### ASTM D3359 ADHESION:

5B ..... Pass

#### ASTM D4060 ABRASION RESISTANCE:

CS17 wheel, 110 cycles, 1 kg load ..... < 50 mg, Pass

#### ASTM D522 FLEXIBILITY:

180° bend, 1/4" mandrel ..... Pass

#### ASTM D3170 CHIP RESISTANCE:

Rating ..... N/A

#### ASTM D2485 DRY HEAT RESISTANCE:

200° F ..... Pass

#### WET HEAT RESISTANCE:

180° F Non-immersion ..... Pass

#### ASTM D2243 WATER-BORNE FREEZE THAW:

3 cycles ..... N/A

All testing conducted at 1.5-2.0 mils DFT on Bondrite™ 1000 Q-steel panels, fully cured, 7 days, air dry, at 77° F and 50% RH.



# AquaGuard™

## Water Based, Silicone Alkyd Top Coat

### APPLICATION DATA

#### SURFACE PREPARATION:

All surfaces must be clean, dry, and free of contaminants. All dirt, grease, rust, mill scale, or loose chalky paint must be removed.

The retrieval and analysis of soluble salts on substrates shall be conducted in accordance with "SSPC: The Society for Protective Coatings," rule. The substrate must be cleaned so that the maximum level of soluble salts does not exceed 5 micrograms per square centimeter. Areas should be tested at the rate of 3 tests for the first 1000 square feet prepared per day, and one test for each additional 1000 square feet or portion thereof, at randomly selected locations.

When less than 1000 square feet of surface area is prepared in a shift, at least 2 tests should be performed. If levels of soluble salts exceed the maximum, the entire area represented by the test should be cleaned again and tested until soluble salt levels conform to this requirement.

**Unpainted new structural steel:** Blast clean near white with appropriate abrasive media. Limit blast profile to 0.5 - 1.0 mil maximum. All surfaces must be clean, dry, and free of contaminants. Apply appropriate primer to the recommended dry film thickness.

- SSPC-SP1S
- SSPC-SP10

**Previously painted structural steel:** Steam clean or power wash to remove all dirt, grease, contaminants, and gloss from existing paint. Spot clean rusty areas to remove all rust and mill scale.

- SSPC-SP1
- SSPC-SP6
- SSPC-SP2
- SSPC-SP11
- SSPC-SP3

**Galvanized steel:** Steam clean or power wash to remove all dirt, grease, and contaminants. Spot clean to remove rust and mill scale. Roughen surface by whip blasting or light sanding. Do not remove intact galvanizing. Epoxy or urethane primer is required.

- SSPC-SP1
- SSPC-SP7
- SSPC-SP2
- SSPC-SP11
- SSPC-SP3

**Concrete:** Clean in accordance with:

- SSPC-SP13 / NACE6

Note: Blast cleaned surfaces must be primed the same day blast cleaning is done.

#### RECOMMENDED PRIMERS: [for optimal performance]

- **966P TriBond W** - 2-part, water based epoxy
  - **965P TriPrime W** - premium, water based primer
- Consult Triangle Coatings for other primer recommendations.

#### MIXING PARAMETERS:

This is a one part product. No mixing is necessary for this product. AquaGuard™ can be reduced up to 2-3% (maximum) by volume with potable water.

#### APPLICATION LIMITS:

- Substrate must remain 10° F above the dew point during application and for 24 hours after application.
- Not recommended for substrate temperatures below 50° F or above 100° F. Maximum RH at worksite: 75%.

### APPLICATION METHODS:

AquaGuard™ can be applied by HVLP, air assist airless, airless spray, brush or roller. For electrostatic applications, please contact your Triangle Coatings representative.

#### HVLP:

Fluid Tip and Needle: ..... .035 - .045"  
 Fluid Pressure: ..... 5-10 psi  
 Air Cap Pressure: ..... 60 psi

#### Air Assist Airless:

Fluid Tip: ..... .013 - .015"  
 Fluid Pressure: ..... 800-1,000 psi  
 Air Cap Pressure ..... 60 psi

#### Airless:

Fluid Tip: ..... .013 - .015"  
 Fluid Pressure: ..... 2,000-2,100 psi

**Brush or Roller:** ..... yes

**THINNING:** ..... Water

**CLEANUP:** ..... Water, Glycol Ether EB  
 Clean tools with detergent and water while AquaGuard™ is still wet.

### HEALTH & SAFETY PRECAUTIONS

#### WARNING:

**COMBUSTIBLE LIQUID AND VAPOR. DO NOT INGEST.** May be harmful if swallowed or inhaled. Vapor may affect the brain or nervous system causing dizziness, headache, or nausea and can cause nose and throat irritation. Liquid contact with eye and skin causes irritation. Keep away from sparks, heat, or open flame. Use with adequate ventilation. Avoid breathing of vapor. Avoid contact with eyes and skin. Wash hands thoroughly after using and before eating and smoking. Wear an appropriately fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor levels are below applicable limits. Keep container closed when not in use. If spillage occurs, absorb and dispose of according to local regulations.

**Contents:** 2-Butoxyethanol, CAS#111-76-2; Anhydrous Ammonia, CAS#7664-41-7.

**FIRST AID:** Should eye contact occur, flush with plenty of water for at least 15 minutes and get medical attention if vision is disturbed. For skin, wash thoroughly with soap and water. If swallowed, seek medical attention immediately. DO NOT induce vomiting.

**NOTICE:** Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. This product does not contain materials listed in California Proposition 65.

**THIS PRODUCT IS FOR PROFESSIONAL USE ONLY.  
 KEEP THIS PRODUCT OUT OF REACH OF CHILDREN.**

### SHIPPING & HANDLING

#### SHIPPING DESCRIPTION: [CFR 49]

**Ground, Air, Vessel** ..... Not Regulated  
 Required Label ..... Not Required  
 Required Marking ..... Not Required

**IMDG PACKAGING:** ..... Not Required

**IMDG STOWAGE:** ..... Not Regulated

**UNIFORM FIRE CODE: [CFR 29]** ..... CLASS III-A

**STORAGE TEMPERATURE:** ..... 120° F max

**SHELF LIFE: [warranted]** ..... 1 YEAR

**HMIS RATINGS:** ..... **H - 2; F - 2; R - 0; PP - B**

**WARRANTY:** The statements made herein, on labels, product bulletins, or by any of Triangle Coatings', Inc. employees or agents concerning this product are given for general information only. Due to variables beyond Triangle's control in application, surface preparation, surface temperature, humidity and other variable factors Triangle assumes no liability for any claim that may arise out of the use of its products and disclaims any warranty expressed or implied relating to the storage, application, thinning, merchantability, Buyer's assumption of performance, and the fitness for a particular purpose. Receipt of products from Triangle or its agents constitutes acceptance of the terms of this warranty. In the event that Triangle finds that the product delivered is not of Triangle's standard quality, Triangle will at its sole discretion, either replace the product or refund the purchase price. Triangle's choice of one of these remedies shall be the Buyer's sole remedy. Triangle will under no circumstances be liable for consequential damages, except insofar as liability is mandated by law. Triangle will deliver products at agreed times insofar as it is reasonably able to do so, but it will not be liable for failure to deliver on time when the failure is beyond its reasonable control.

IM10-12/05-005