



GOLDSTONE™ ANTENNA COATINGS

General Information		Goldstone™ 6 Series		Goldstone™ 7 Series	
		[Original Formula]		[New Formula]	
Description & Use		<ul style="list-style-type: none"> Specially formulated for high infrared radiation reflectance Protects large dish telescopes, radio receivers, and microwave antennas from heat accumulation Originally formulated for the NASA Deep Space Instrumentation Facilities 		<ul style="list-style-type: none"> Specially formulated for high infrared radiation reflectance Protects large dish telescopes, radio receivers, and microwave antennas from heat accumulation Recently re-formulated for the NASA Deep Space Instrumentation Facilities, to provide a superior water-based alternative IR reflectance coating 	
Advantages		<ul style="list-style-type: none"> High infrared diffusion Reduces surface temperature Does not distort or obstruct transmission or receiving signals 		<ul style="list-style-type: none"> High infrared diffusion Reduces surface temperature Does not distort or obstruct transmission or receiving signals Ultra low VOC Extremely smooth surface Fast dry, compared to solvents Direct to metal application Eliminates solvent disposal and reduces overall cost 	
Limitations		<ul style="list-style-type: none"> May not meet local air regulations 			
Product Attributes		[Metric]	[English-US]	[Metric]	[English-US]
Formula Base		solvent based		water based	
VOC Content [as packaged]		426 g/l	3.86 lb/gal	47 g/l	0.39 lb/gal
Flashpoint [setaflash]		42.2° C	108° F	> 121° C	> 250° F
Solids Content [average]	By weight	70 ± 10%		62 ± 10%	
Solids Content [average]	By volume	46 ± 10%		45 ± 10%	
Weight [as packaged]		1.42 kg/L	11.8 lb/gal	1.42 kg/L	11.8 lb/gal
Viscosity [as packaged]		ASTM D562 79 ± 10 KU		112 ± 10 KU	
Coverage [average]		25.4 microns [1 mil] DFT	18.00 m ² /L	17.72 m ² /L	722 ft ² /gal
Physical Properties & Durability*					
Required Film Thickness					
Minimum Dried Film	ASTM D1005	38 microns	1.5 mils	38–50 microns	1.5 – 2.0 mils
Minimum Wet Film	ASTM D4414	76 microns	3.0 mils	76-111 microns	3.0 – 4.4 mils
60° Specular Gloss [flat]		ASTM D523	1-3	1-3	
MEK Rubs		ASTM D5402	[10 double]	Pass	[40 double] Pass
Pencil Hardness		ASTM D3363		HB-F	F-H
Flexibility [180° bend]		ASTM D522	[¼" mandrel]	Pass	[¼" mandrel] Pass
Adhesion		ASTM D3359	[5B minimum]	Pass	[5B minimum] Pass
Impact Resistance [fwd/rev]		ASTM D2794	69/46 kg-cm	60/40 in-lb	138/138 kg-cm 120/120 in-lb
Atmospheric & Weathering Properties*					
Salt Spray Resistance		ASTM B117	[5%, 100 hours]	Pass	[5%, 150 hours] Pass
Humidity Resistance		ASTM D2247	[1000 hours]	Pass	[1000 hours] Pass
Dry Heat Resistance		ASTM D2485	[66° C / 150° F]	Pass	[135° C / 275° F] Pass
Water-Borne Freeze Thaw		ASTM D2243	[N/A]	N/A	[3 cycles] Pass
Corrosion Weathering		ASTM D5894UV			
Rusting	ASTM D610	[7 cycles, 150 hours]	See Note #1	[7 cycles, 150 hours]	Pass
[≤ 3 mm from scribe mark]					
Blistering		ASTM D714	[7 cycles, 100 hours]	See Note #1	[7 cycles, 100 hours] None

*All tests conducted on Bondrite™ 1000 Q-steel panels with the following parameters:
 38-50 micron [1.5–2.0 mils] DFT, Fully Cured [7 days, air dry], at 25° C [77° F] and 50% RH
 Note #1: Goldstone 6 Series is not formulated for direct application to ferrous substrates.



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Application Data	Goldstone™ 6 Series [Original Formula]	Goldstone™ 7 Series [New Formula]
Applicable Substrates	Direct to ferrous or nonferrous Galvanized metal Aluminum and aluminum alloys Properly prepared concrete	Direct to ferrous or nonferrous Galvanized metal Aluminum and aluminum alloys Properly prepared concrete
Surface Preparation [see data sheet for detailed information]	<ul style="list-style-type: none"> Surface and ambient temperatures must be and remain above 10° C [50° F] during and for 4 hours after application Surface must be clean, dry, and free of oil, grease, dust, flaky rust, mill scale, and peeling paint Abrasive blast cleaned surfaces must be tested for soluble salts using Class A or B retrieval method as described in Technology Guide 15 of the SSPC: Society for Protective Coatings Clean in accordance with: SSPC-SP1 (aluminum, galvanized) SSPC-SP2 (iron, steel, galvanized) SSPC-SP3 (iron, steel) SSPC-SP6 (iron, steel) 	<ul style="list-style-type: none"> Surface and ambient temperatures must be and remain above 10° C [50° F] during and for 4 hours after application Surface must be clean, dry, and free of oil, grease, dust, flaky rust, mill scale, and peeling paint Abrasive blast cleaned surfaces must be tested for soluble salts using Class A or B retrieval method as described in Technology Guide 15 of the SSPC: Society for Protective Coatings Clean in accordance with: SSPC-SP1 (aluminum, galvanized) SSPC-SP2 (iron, steel, galvanized) SSPC-SP3 (iron, steel) SSPC-SP6 (iron, steel)
Recommended Primers	900P Envirotech Primer (aluminum) 945P AquaPrime Primer (galvanized)	283PAJ60 Aquapoxy Primer
Application Methods	HVLP Air Assist Airless Conventional Airless Electrostatic (consult Triangle) Brush / Roll	HVLP Air Assist Airless Conventional Airless Electrostatic (consult Triangle) Brush / Roll
Retarding Solvent		AT-74
Thinning	Mineral Spirits/Xylol [see data sheet for thinning limitations]	None
Dry Schedule [50% RH]	25° C, 38 micron [77° F, 1.5 mils]	25° C, 38 micron [77° F, 1.5 mils]
Dry to touch	3 hours	30 mins
Handle/Recoat	6 hours/12 hours	2 hours/2 hours
Full Cure	7 days	7 days
Cleanup	Lacquer Thinner	Water

Health & Safety Precautions

Shipping Description	CFR 49		
Ground		Not Regulated	Non Regulated Material
Air/Vessel		Paint, 3, UN1263, PG II	Non Regulated Material
Required Label		FLAMMABLE LIQUID	Not Required
Required Marking		PAINT UN1263	Not Required
IMDG Packaging		FLAMMABLE LIQUID, class 3.3, UN1263, III	Not Required
IMDG Stowage		Category A	Not Required
Uniform Fire Code	CFR 29	CLASS II	Non Combustible
Storage Temperature		48.9° C max [120° F max]	1° - 48° C [35° - 120° F] KEEP FROM FREEZING
Shelf Life [warranted]		1 year	6 months
HMIS Ratings		H - 2; F - 2; R - 0; PP - H	H - 2; F - 0; R - 0; PP - H

Information above provided for summary reference only and subject to change without notice.

For more information on Goldstone 6 Series, Goldstone 7 Series, or any Triangle Industrial Products, please consult a Triangle Coatings representative.