

PRODUCT INFORMATION

7714 A/B



Primer

Description

Lord® 7714A/B primer is used to prime metal surfaces. It is particularly useful for priming non-ferrous substrates such as aluminum and galvanized steel.

Features and Benefits

Excellent Adhesion - provides adhesion to aluminum, steel, and galvanized steel.

Chromate-Free - offers superior corrosion protection without chromate pigments.

Unrestricted Recoat Time - requires no maximum recoat time, as long as the primed surface remains clean and dry.

Reduced VOC Level - formulated to be below 780 gm/liter (6.5 lbs/gal).

Typical Properties* of Lord 7714 A/B Primer

	7714A	7714B	Mixed
COLOR	Red	Clear	Red
SOLIDS CONTENT, ASTM D 2369 modified			
% by weight	34.0	1.8	17.9
% by volume	22.1	0.8	11.1
DENSITY ASTM D 1475			
kg/liter	1.08	0.85	0.96
lb/gallon	9.0	7.1	8.0
VISCOSITY ASTM D 2196, Brookfield LVT, 25°C (77°F)			
Spindle #1 @ 60 RPM, cps	---	~10	---
Spindle #2 @ 30 RPM, cps	4,000	---	400
FLASH POINT ASTM D3278			
Setaflash, Closed Cup	21°C (69°F)	21°C (69°F)	---
VOLATILE ORGANIC CONTENT(VOC), ASTM D 3960			
g/liter	686	827	756
lb/gallon	5.7	6.9	6.3
THEORETICAL COVERAGE, (see Table 1)			
DRY TIME, GARDNER, Mechanical 22.2°C (72°F)			
Set to touch	---	---	20 min.
Surface Dry	---	---	1.5 hours
Dry Hard			2 hours
GARDNER IMPACT			
Direct, kg-cm	---		Passes 184
inch-lbs	---		Passes 160
Reverse, kg-cm	---	---	Passes 184
inch-lbs	---		Passes 160
CONICAL MANDREL			
Bend ASTM D 522	---		Passes 1/8"

*Data is typical and not to be used for specification purposes.

Limitations

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. **Not for consumer use.**

The metal surface to be primed must be free from all dirt, oil, grease, and rust. Test patches of the full Lord system should be examined for adhesion, etc., before coating special alloys or applied over surfaces that are chemically treated. When priming surfaces that are chemically treated, abrade the surface prior to priming with Lord 7714 primer.

Very low build (less than 0.5 mil dry). Thicker films, low temperature and/or high humidity can retard the cure of Lord 7714 primer.

Primer must be thoroughly dry before topcoating.

Not recommended as a primer over painted surfaces.

Surface Preparation

For maximum corrosion protection and long service life, all substrates must be clean and prepared properly before priming. Lord 7714 primer can be used on ferrous and non-ferrous substrates.

Each substrate requires specific preparation before priming. Listed below are some guidelines to follow. These guidelines refer to the Steel Structures Painting Council's Manual (SSPC), Volume 2, Systems and Specifications.

Ferrous Substrates

The degree of rusting that occurs on steel surfaces and varying grades of blast cleaning of rusted and blasted surfaces are pictorially represented in the SSPC VIS-67 (ASTM D-2200-67) or NACE visual reference standards.

Particular attention should be given to the proper preparation of weld seams, rivet heads, and all joints. Their preparation and the removing weld splatter should be done according to SSPC-SP3 or NACE preparation procedures. These areas require special attention because of their rough, irregular profiles which are difficult to coat. To prepare these areas, chip off all flux, weld spatter and weld wires that are left by the welding operation. Grind weld seams to reduce high profiles and chamfer all sharp and ragged edges. By removing weld spatter and reducing the rough, high profiles, these areas become easier to coat. This reduces the chances for early coating failures.

Grease and oil must be removed (SSPC-SP 1). Solvent wiping, usually xylene, must be done carefully so that the oil and grease is removed and not spread over a larger area. Use a large amount of clean, untreated rags.

All mill scale, rust, old paint and other foreign material must be removed, usually by blast cleaning.

Use quality blast material to obtain an anchor pattern of 2 to 3 mils and a white metal blast (SSPC-SP 5). The blast media must be dry to achieve a good blast. If the blasted surface shows a dark brown stain after blasting, the surface should be re-blasted to remove the corrosive products still left on the surface. Remove all blast material and dust from the surface by brush, dry air blast, or vacuum prior to priming.

Freshly blast-cleaned surfaces must be primed as soon as possible after blasting. The blast cleaned surface oxidizes (rusts/blushes) quickly when left exposed to moist air. Heavy rusting (blushing) must be removed before priming. All blast-cleaned areas must be primed the same day they are blasted.

Non-Ferrous Substrates

Except for stainless steel, most non-ferrous substrates (aluminum, special alloys or galvanized [zinc] steel) are too soft to blast clean. The best methods used to clean these substrates are detergents and solvent cleaning (SSPC-SP 1). For special alloys, adhesion tests are recommended to determine if the Lord 7714 primer is a suitable primer.

The numbers for surface preparation standards (procedures) for SSPC are:

SSPC-Viz-1-67 Pictorial Surface Preparation (ASTM 2200-67) Standards for Painting Steel Surfaces
SSPC-SP 1-63 Solvent Cleaning (Detergent Cleaning)
SSPC-SP 2-63 Hand Tool Cleaning
SSPC-SP 3-63 Power Tool Cleaning
SSPC-SP 5-63 White Metal Blast Cleaning
SSPC-SP 6-63 Commercial Blast Cleaning

Mixing

	Volume	Weight
Lord 7714A	1.0	100.0
Lord 7714B	1.0	78.9

The mixing ratio for Lord 7714 primer is 1:1 by volume. This primer is supplied in premeasured kits.

Mix Part A well, then add about 1/3 of Part B into the Part A container, and mix well. Add the rest of Part B in two additions. Stir well after each addition. Mix well and allow to stand for 15 minutes. Stir again before and during use.

Lord 9958 thinner can be added to Lord 7714 primer to provide better flow properties and to control application film thickness. Add up to 20% Lord 9958 thinner, by volume. Add the thinner slowly while stirring to prevent separation (shocking) of the pigment in Lord 7714 primer.

Do not thin if compliance to 780 g/l VOC regulations is required. Adding Lord 9958 thinner will increase the VOC above this limit.

Application

Lord 7714 primer is best applied by siphon or pressure pot spray equipment. Lord 7714 primer can be brush applied to small parts. See Table 2 for suggested spray equipment. Refer to the section on “Thinner” for dilution instructions.

Lord 7714 primer must be applied in a single wet pass with a 50% overlap. Hold the gun at right angles to the surface and about 8-12 inches away. Make even, parallel passes and spray about 3 wet mils to get about 0.3 mils dry. Lord 7714 primer is applied as a thin film at less than 0.5 mils dry maximum. A thicker film is not recommended. See Table 1 for Theoretical Coverage.

Curing

At proper thicknesses (0.25 - 0.5 dry mils), Lord 7714 primer will dry and cure quickly between 18.3°C - 23.9°C (65°F - 75°F). High velocity air or good ventilation helps remove solvents and accelerate drying. High humidity conditions and low temperatures slow the drying. When Lord 7714 primer completely dries, it has a dull, matte, see-through appearance.

At proper thickness and curing, Lord 7714 primer will be dry to touch and ready to overcoat with Lord Engineered Adhesives in 2 to 3 hours after application. Consult your Lord representative for adhesive recommendations.

Clean Up

Clean equipment with Lord 9958 thinner before Lord 7714 primer dries.

Packaging

- Lord 7714A 1 Gallon kit
- Lord 7714B 1/2 Gallon bottle

Storage

Lord 7714 primer should be stored in a dry covered area. Part A should be protected from temperatures above 26.7°C (80°F) because high temperatures cause the viscosity to increase.

The shelf life of Lord 7714 primer, Part A and B, is 6 months when stored as indicated above in the original, unopened containers.

Cautionary Information

Before using this or any Lord product, refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling instructions. In the event of potential conflict, the information contained in the MSDS and label prevails over the information provided herein.

Table 1: Theoretical Coverage

Wet Film Thickness		Dry Film Thickness		Theoretical Coverage	
Mils	Micrometer	Mils	Micrometer	m ² /l	ft ² /gal.
4.5	114.3	0.50	12.7	8.7	356
2.25	57.2	0.25	6.4	17.4	711

**Table 2: Suggested Spray Equipment
(or equivalent)**

	Binks Model No.	SIPHONFEED DeVillbiss Model No.	Graco Model No.
Gun	62	JGA 502	208-615
Fluid Tip	63 (.070")	AV-1 1 15-EX (.070")	172-041 (.070")
Needle	365	JGA-402-DEX (.070)	208-483 (.070)
Air Cap	66 SH	No. 30 (MB-4039-30)	208-765
Atomizing Pressure	40-50 psi (276-345 N/mm ²)	40-50 psi (276-345 N/mm ²)	40-50 psi (276-345 N/mm ²)
		PRESSURE POT	
Gun	62	JGA-502	208-477
Fluid Tip	63B	AV-1 1 15-FX (.0425")*	208-481 (.0425")
Needle	363A	JGA-402-FX (.0425")	172-039 (.0425")
Air Cap	63PB	770 (AV-1239-770)	169-877
Fluid Pressure	102 N/mm ² (15 psi)	102 N/mm ² (15 psi)	102 N/mm ² (15 psi)
Atomizing Pressure	102 N/mm ² (15 psi)	102 N/mm ² (15 psi)	102 N/mm ² (15 psi)

*Depends upon viscosity of material to be sprayed; for high viscosities, use larger tip and needle combination.

Values stated in this bulletin represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Service Department.

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For information, contact Bergdahl Associates, Inc.
2990 Sutro Street
Reno, Nevada 89512-1616
775-323-7542 fax 775-323-7595
www.bergdahl.com

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