

## PREPARATION FOR PAINT

1. Metal preparation is the first step in ensuring both the adhesion and appearance of the finishing top coat of paint will meet our customer expectations and Liftking's quality objectives. Therefore it is mandatory for all personnel involved in the preparation of material for painting, understand and adhere, to the following instructions.
2. All materials processed for painting at Liftking are fabricated using steel of various grades depending on design criteria.
3. Materials to be processed for painting include

**A. Heavy Steel Metal Parts**

Such as frames, masts, carriages, booms overhead guards, wheel bogey assemblies, cab frame assemblies etc.

**B. Sheet Metal Parts**

Such as fenders, engine and transmission covers, doors, cabs, etc.

**C. Component Parts**

Such as cylinders, axles transmissions etc

**D. Vehicles**

### A. HEAVY STEEL METAL PARTS

1. All heavy metal parts are to be grit blasted to remove all mill-scale, rust, slag , laser scale and weld spatter.
2. After completion of grit blasting material to be moved to grinding area for removal of remaining weld spatter, grinding of sharp edges and blending of weld joints as required.
3. On completion of grinding Paint Shop foreman to inspect parts for
  - a. Completeness of Assembly
  - b. mark any areas where body filler is required
  - c. mark parts okay for primer
4. If required fill marked areas with body filler let dry and grind smooth and have foreman re-inspect and mark parts okay for primer.

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**B. SHEET METAL PARTS**

1. Grind as required to remove sharp edges and corners
2. Grit blast all sheet metal parts
3. Clean all welds to remove weld spatter and blend weld joints if required
4. On completion of grinding Paint Shop foreman to inspect parts for
  - a. any unfinished or unacceptable welds (and have repaired as required)
  - b. mark any areas where body filler is required
  - c. mark parts okay for primer
5. If required fill marked areas with body filler let dry and grind smooth and have foreman re-inspect and mark parts okay for primer
6. If re-welding is required ensure area is properly ground and cleaned and have foreman re-inspect and mark parts okay for primer.

**C. COMPONENT PARTS**

1. All component parts are to be checked
2. Clean all welds to remove weld spatter and blend weld joints if required
3. On completion of grinding Paint Shop foreman to inspect parts for any unfinished or unacceptable areas (and have repaired)

**D. VEHICLES**

1. Vehicles shall be washed and cleaned of all dirt, grease and oil
2. All area's requiring body fill will be ground, filled and sanded smooth
3. All previously painted area's shall be sanded to remove gloss.
4. On completion of preparation the foreman will inspect and when acceptable have the vehicle masked for painting.

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### **MASKING AND NON PAINTED SURFACES**

1. Surfaces of components and assemblies not normally painted with a finish coat shall be cleaned and protected in accordance with good commercial practice.
2. Lift chains, sprockets, rollers, plastics, fabric hoses, hydraulic hoses and drive belts shall not be painted, except that slight overspray will be accepted provided there is no interference with the proper functioning of the component.
3. Paint must be kept off working surfaces where interference with working parts would result.
4. Engines and engine accessories, such as radiator, drive belts, instruments and chrome plating shall not be painted and shall be adequately protected or masked from overspray
5. Similarly all glass, mirrors, interior insulation and upholstery shall be protected or masked from overspray

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### PAINTING (653 Series 2C Acrycote 3:1)

1. All truck surfaces shall be painted to prevent rusting.
2. All surfaces to be painted shall be thoroughly cleaned and free of all contamination by abrasive blasting. All surfaces shall be dry and free from mil scale, oil, grease, dirt and rust and shall be painted as soon as practicable after cleaning.
3. All bare metals must have a good coat of primer of no less than 2 mils
4. All topcoats should have a finish of 3 mils. Higher film builds may be required to ensure an acceptable color match to standard. Always check color to supplied color standard.
5. Total paint coverage should be a minimum of 5 – 5.5 mils.
6. The finish coat when dry shall be a smooth even surface, free from runs, sags, peels, chips, blisters, areas of thin film and areas of no film.
7. Mixing and application of primer and paint will be in accordance with PPG recommendations.
8. On completion of painting, parts/vehicle will be inspected.
9. All rework will be recorded on the Paint Shop Rework Report (RR 008)

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**TWO COMPONENT ISOCYANATE-FREE TOPCOAT PAINT PROCEDURE**

**1. Metal Preparation**

- a. Metal preparation shall be carried out as outlined in PS001 for all new metal parts
- b. Items that are being repainted shall be steam cleaned and blown dry to ensure all grease and oil are removed.
- c. All previously painted surfaces shall be sanded to ensure adhesion of primer coating.

**2. Primer**

- a. All bare metal surfaces shall be primed using PPG Spectracron Fleetprime Epoxy Primer Series 634
- b. Primer shall be mixed in accordance with PPG’s mix ratio of Blend 1:1
- c. Induction Period: None
- d. Recommended Wet Film: 3.0 – 6.0 mils
- e. Recommended Dry Film: 2mils minimum – 2.2 mils
- f. Recommended Thinner: 89 Thinner Slower, 66 Epoxy Thinner
- g. Number of Coats: 1 - 2
- h. Clean up: MEK, Lacquer or Recommended Thinners
- i. Application shall be air spray
- j. Air Dry @ 25oC
- k. • Dry to touch: 15 to 60 min depending on air temperature
- l. • Dry to handle: 60 min with 734001, 3 hrs with TX7068
- m. • To topcoat recoat: 45 min
- n. • Force dry: Flash 10 min @ ambient, 20 min @ 160oF

**3. Paint**

- a. Top coat shall be 653 Series 2C Acrycote 3:1
- b. Top coat shall be mixed in accordance with PPG’s mix ratio of 3:1
- c. Recommended Preparation: Properly prepared substrate coated with corrosion resistant primer. Recommended primer is a two component epoxy primer.
- d. Atmospheric Conditions: Surface and product temperatures must be at least 10 deg C (50 F) and at least 3 deg C (5F) above dew point. Apply in dry weather when relative humidity is less than 85%.
- e. Induction Period: None @ 21 deg C (70F)
- f. Thinning Ratio: (if required)Airless 10-20%, A.A.Airless 20-30%, Conventional 25-40%
- g. Application Procedure: Prior to and immediately following application, rinse all equipment clean with 87 or 89 Thinner. When application is made by airless or air assisted airless, use an



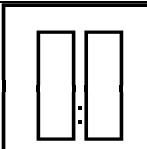
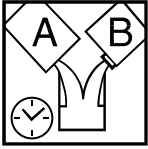
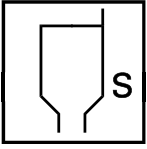


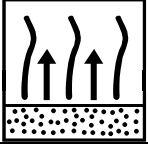
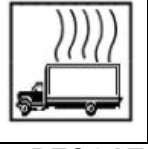
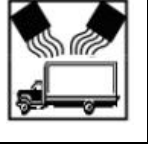
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inbound pressure approx. 10-15 lbs above the level at which "fingering" occurs. Apply material in one wet coat overlapping each pass 50%. Special attention should be given to all edges, pits, welds, corners, rivets and other rough spots to ensure complete coverage.


**INSPECTION**

Inspections and checks are to be completed for each layer.(primer & topcoat).

**FleetPrime 634 Epoxy      Mixing Instructions**

SUBSTRATE PREPARATION					
	The surface must be clean and free of all contamination by abrasive blasting or chemical cleaning. Blast to white metal SSPC #10 with a blast profile not exceeding 25% of total DFT. Non blasted substrates should be degreased and properly cleaned (preferably phosphate treated) for maximum adhesion.				
MIXING INSTRUCTIONS					
	Mix well with mechanical agitation prior to use		Mixing Ratio	634xxxx : 734004	
			1:1	1 : 1	
APPLICATION PARAMETERS					
	Pot Life @ 70 F/ 50% RH	8 hours as supplied High Heat will shorten Pot Life. Store paints at room temperature		Spray Viscosity	30-35 seconds #2 EZ Zahn Cup. Thin with 85 if required
	Spray gun set up	HVLP		Number of coats	2 coats
	Fluid tip	1.5 mm		WFT	4.5-6.0 mils
	Air Pressure	45 – 55 psi		DFT	2.0–2.5 mils
	Fluid Flow	10–16 oz/min			
<b>NOTE: Metal temperature should be above 50 F for consistent application and drying</b>					
BAKING PARAMETERS					
	Flash time	10 minutes minimum		Air dry	3 hours
				Bake	20 minutes above 160F <u>substrate</u> temperature
RECOAT INSTRUCTIONS					

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	<p><b>Recoat</b></p>	<p><b>1 hour minimum 30 days maximum</b></p>	
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Additional Information:

- This epoxy primer shows excellent adhesion properties to Acrycote beyond 7 days. However, a light scuffing is generally recommended to ensure removal of surface dust and contaminants and ensure optimum adhesion after 30 days.
- Cold metal or paint temperature will impact application and appearance issues as well as dry times
- Consult MSDS for proper protective equipment.

Note: Statements and methods described herein are based upon the best information and practices known to PPG Industries, Inc. However, procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance or results, nor does PPG Industries, Inc., warrant freedom from patent infringement in the use of any formula or process herein.

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## PAINT TOUCH-UP

1. Metal preparation is the first step in ensuring both the adhesion and appearance of the finishing top coat of paint to meet our customer expectations and LIFTKING's quality objectives. Therefore it is mandatory for all personnel involved in the preparation of material for painting, understand and adhere, to the following instructions.
2. All materials processed for paint touch ups at Liftking are fabricated using steel of various grades depending on design criteria.
3. Materials to be processed for paint touch ups include

**A. Heavy Steel Metal Parts**

Such as frames, masts, carriages, booms overhead guards, wheel bogey assemblies, cab frame assemblies etc.

**B. Sheet Metal Parts**

Such as fenders, engine and transmission covers, doors, cabs, etc.

**C. Component Parts**

Such as cylinders, axles transmissions etc.

**A. ALL SURFACES**

1. Grind or Sand all surfaces in preparation for primer and top coat.
2. Grind, or Sand as required to remove sharp edges and corners.
3. If overspray is present clean off with a wet rag. If it does not come off, sand surface to remove gloss and to prepare surface for painting
3. All previously painted area's shall be sanded to remove gloss.
4. All bare metals must have a good coat of primer of at least (2-3 mils)
5. All top coat should have a finish of 3mils
6. total paint coverage should be a minimum of 5-5.5mils.

**B. COMPONENT PARTS**

1. All component parts must be cleaned with a nonoil base solvent

**C. TOOLS**

1. A small gravity feed touch up gun should be used for surface areas greater than one inch squared.
2. All area's smaller than one inch square a brush can be used.

**D. MIXING**

1. Primer packets and paint packets should be mixed together as per instructions on the packet.
2. Liquid paint cans must be mixed as per manufactures instructions. See attached separate instructions

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