



# Highland International, Inc.

## Engineered Paint Systems

### AeroShield 61 Series

#### Aliphatic Copolymer Urethane Direct-to-Metal

61 Series is "Next Generation Aerospace Technology." It is a corrosion inhibitive, direct-to-metal urethane designed to provide superior protection to a variety of substrates in a one-coat application. Implementing aircraft coating technology, this 2K aliphatic copolymer urethane exhibits outstanding adhesion, chemical resistance, flexibility, impact resistance, UV resistance, and corrosion resistance even over marginally prepared surfaces. Aero-Shield offers the perfect combination of color purity, gloss retention, abrasion resistance, and durability in an easy-to-apply one coat application resulting in a premium finish.

<b>Vehicle Type:</b>	Aliphatic Copolymer Urethane
<b>Pigmentation:</b>	Varies with Color (Lead & Chromate Free)
<b>Reducer:</b>	Highland #61 Series Reducers (Do not exceed 2.5% reduction)
<b>Mix Ratio:</b>	3:1 Base to Activator
<b>Pot Life:</b>	3 Hours @77°F (Decreases in higher temps)
<b>Volume Solids:</b>	50% +/- 1%
<b>Theoretical Coverage:</b>	802 ft <sup>2</sup> /gal. @ 1 mil DFT
<b>VOC:</b>	All Colors <350 g/L
<b>Flash Point:</b>	23° (Lowest Flashing Component)
<b>Recommended DFT:</b>	DTM: 4-6 mils (8-12 mils wet) Topcoat: 2-4 mils (4-8 mils wet)
<b>Dry-time @ 77°F:</b>	
<b>To Touch</b>	1 Hour
<b>Tack Free:</b>	2 Hours
<b>To Recoat:</b>	1 Hour
<b>Dry Thru:</b>	6-8 Hours
<b>Full Cure:</b>	5-7 Days
<b>Shelf Life:</b>	1 Year Minimum
<b>Finish:</b>	Semi-Gloss & Satin
<b>Color:</b>	Selected Range

#### Surface Preparation for DTM Application

**Steel:** SSPC-SP6 Commercial Blast 1 mil maximum steel profile when practical

**Galvanized Steel:** Old Galvanized – pressure wash or sweep blast to remove salts. New Galvanized – SSPC-SP1 Solvent Clean followed by SSPC-SP2, Hand-Tool, SSPC-SP3 Power Tool, or SSPC-SP6 Commercial Blast to achieve a 1 mil maximum profile.

**Aluminum:** Lightly Sand/Scotch-Brite to ensure "water-break free" surface. Solvent Clean

\*All surfaces to be painted should be dry and free of all foreign contaminants. Remove all existing coatings and loose rust to ensure proper adhesion and maximum protection. Soluble salt removal is recommended for all substrates.

#### Mixing and Application Requirements

Mix 1 Part "A" Activator with 3 Parts "B" Base. Allow a 5 minute induction period before application and/or reduction. Reduction is not necessary; if desired, reduce 10-15% by volume with one of Highland's Aero-Shield Reducers (listed above).

#### Typical Performance

<b>Adhesion (Commercial Blast)</b> (ASTM D 4541)	>1700 PSI (glue failure)
<b>Salt Spray Resistance</b> (ASTM B 117)	1000 hours – no effect
<b>Impact Resistance (Direct/Reverse)</b> (ASTM D 2794)	>100 inch-lbs
<b>Flexibility (1/8" Mandrel)</b> (ASTM D 522)	Pass
<b>Pencil Hardness</b>	2H
<b>Skydrol Immersion (168 hours)</b> (ASTM D 714)	Pass (Pencil Hardness - H)
<b>Solvent Resistance (100 dbl rubs)</b> (MEK/Toluene/Gasoline/Diesel)	No Effect
<b>Sprayability</b> (FED-STD-141 (4331))	Excellent

#### Method of Application

<b>Conventional Gun:</b>	DeVilbiss MBC-510
Fluid Tip:	E
Air Cap:	704
Atomizing Pressure:	60 psi
Pot Pressure:	15-20 psi
Hose:	1/2 inch ID
<b>Airless Gun:</b>	Graco 205-591
Pump:	30:1/45:1/60:1, gas driven pump acceptable
Tip Range:	3.011 – 5.013
Pump Pressure:	1800 psi minimum
Hose:	3/8 inch ID
<b>Brush or Roller:</b>	Touch-up only
<b>Clean Up:</b>	Clean all equipment with lacquer thinner

#### Safety Precautions

- 1) Use normal precautions such as gloves, facemasks and barrier creams.
- 2) Adequate ventilation must be maintained. In confined areas, workmen must wear constant flow airline respirators.

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- 3) If product comes into contact with skin, wash thoroughly with lukewarm water or diluted Boric Acid, and obtain immediate medical attention.
- 4) This product contains **FLAMMABLE** materials. Keep away from sparks and open flames. Observe **NO SMOKING** regulations.
- 5) All electrical equipment and installations should conform to NEC regulations. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools, and to wear conductive, non sparking shoes.
- 6) Observe low flash regulations.
- 7) Refer to Material Safety Data Sheet (MSDS) for complete safety instructions.

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