



## Application Instructions

### STEEL-IT 1400D Polyurethane Aerosol – Safety Yellow

System	<ul style="list-style-type: none"><li>4 coats STEEL-IT 1400D Polyurethane Aerosol – Safety Yellow</li><li>For harsh conditions, an additional 2 coats are recommended.</li><li>A single coat is 8 mils (0.008"; 205 microns) Wet Film Thickness (WFT) and dries to 1.5 mils (0.0015"; 38 microns) Dry Film Thickness (DFT) when applied at a swift moving speed across the surface.</li></ul>				
Surface Preparation	<p>STEEL-IT coatings adhere to metal surfaces through mechanical adhesion and require a rough profile on the bare metal – ideally achieved by grit-blasting or power-sanding. The surface once properly prepared should feel like the striking area on a matchbox.</p> <ul style="list-style-type: none"><li>Surfaces should be clean and free of all rust, paint, greases, waxes, salts, dirt, scale, etc.</li><li>For best results, grit-blast to SSPC SP-6 (Commercial Blast).</li><li>Anchor pattern should be cut and angular at 1.5 - 2.0 mils deep (0.0015" – 0.0020"; 38-50 microns).</li><li>Power-sanding with a dual-action sander or random orbital sander using #36 grit sandpaper will achieve similar results on steel. After grit-blasting, blow any remaining grit material off using an air hose and/or solvent clean the surface with acetone or alcohol. Avoid using products that leave behind an oily residue (such as mineral spirits).</li></ul>				
Ambient Conditions	<ul style="list-style-type: none"><li>Apply when ambient and substrate surface temperatures are 50 °F - 120 °F (10 °C - 49 °C)</li><li>Relative humidity less than 85%</li><li>Temperature of substrate surface and coating are at least 5 °F (2.75 °C) above the dew point.</li><li>Climate conditions (e.g. high humidity or high aridity) will impact coating dry/cure time. Longer cure times may be necessary for higher humidity or colder climates. Spraying speed and technique may need to be adjusted.</li></ul>				
Agitation	<ul style="list-style-type: none"><li>Shake the can vigorously for 2 minutes, ideally with a power shaker.</li><li>Shake the can continuously throughout the application.</li></ul>				
Application Method	<ul style="list-style-type: none"><li>Spray from a distance of 12-16" (30-40 cm) making multiple passes to achieve proper coating wet film build.</li><li>Overlap the spray paint pattern by 50%.</li><li>Adjust the application speed according to climate conditions.</li></ul>				
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Additional Coats	<p>If applying optional additional coats for enhanced durability:</p> <ul style="list-style-type: none"> <li>Allow 4<sup>th</sup> coat to cure for 4-6 hours</li> <li>Apply 5<sup>th</sup> and 6<sup>th</sup> coats with one-hour dry time in between</li> <li>After applying 6<sup>th</sup> coat (final coat), air cure for 5-7 days</li> </ul>
Wet/Dry Film Build	<ul style="list-style-type: none"> <li>For each coat, apply 8 mils (0.008"; 205 microns) Wet Film Thickness (WFT) to achieve 1.5 mils (0.0015"; 38 microns) Dry Film Thickness (DFT) per coat.</li> <li>Use a Wet Film Thickness Gauge when the coating is wet to measure film build per coat during application.</li> <li>For proper performance, the end total DFT of STEEL-IT coating applied should be 6 mils (0.006"; 150 microns) DFT.</li> <li>For parts exposed to harsher conditions, we recommend achieving 9 mils (0.009"; 225 microns) total DFT.</li> <li>We do not recommend using an electronic gauge to measure Dry Film Thickness. For an explanation, please refer to the FAQs on <a href="http://STEEL-IT.com">STEEL-IT.com</a></li> </ul>
Dry Time and Recoat Windows	<ul style="list-style-type: none"> <li>Dry to touch: 1-2 hours</li> <li>Tack-free to handle: 2 hours</li> <li>Dry to recoat window: 4-24 hours</li> <li>If more than 24 hours passes between coats, a light scuff-sanding using #400-600 grit sandpaper is required before applying an additional coat</li> </ul>
Curing	<ul style="list-style-type: none"> <li><b>Full cure in 5-7 days after final coat</b></li> <li>Recommended cure time can vary based on ambient temperature and humidity.</li> <li>Air cure with ambient and substrate surface temperatures of 50 °F -120 °F (10 °C - 49 °C)</li> <li>Heating to expedite curing time is not recommended and may interfere with proper cure.</li> <li>Cure time required before part can be packaged or put into service depends on how the part will be used. Please refer to FAQs on <a href="http://STEEL-IT.com">STEEL-IT.com</a> for details.</li> <li>Cure and corrosion resistance is accelerated initially and will continue to improve over 4-6 week period.</li> </ul>
Welding	<ul style="list-style-type: none"> <li>Allow a full 7-days cure before welding</li> <li>TIG or MIG welding</li> <li>Seamless touch-up with STEEL-IT Polyurethane Aerosol</li> </ul>
Safety	<ul style="list-style-type: none"> <li>Wear a NIOSH-approved respirator with an organic vapor cartridge</li> <li>Use nitrile gloves</li> <li>Apply STEEL-IT in a well-ventilated area</li> </ul>
Cleanup	<ul style="list-style-type: none"> <li>Use mineral spirits for clean up</li> </ul>

## Physical Properties

Property	STEEL-IT 1400D Aerosol
Color	Safety Yellow, satin finish
Weight (calculated)	12 oz/can (340 g/can)
Coverage @ 3 mil (0.003"; 75 microns) DFT*	6.5 sq ft/can (0.6 sq m/can)

\* Values assume 20% loss due to overspray.

Safety Data Sheets (SDS) and Technical Data Sheets (TDS) are available online at: [STEEL-IT.com](http://STEEL-IT.com)

Please contact us to discuss your specific application needs: [contactus@steel-it.com](mailto:contactus@steel-it.com)

All users are responsible for conducting testing to determine the suitability of STEEL-IT Brand Coatings for the specific requirements of their applications.

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