



## Application Instructions

### STEEL-IT 1050B Polyurethane Aerosol – Dove Gray

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| <b>System</b>              | <ul style="list-style-type: none"> <li>4 coats STEEL-IT 1050B Polyurethane Aerosol – Dove Gray</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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Surface Preparation</b> | <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> |
| <b>Ambient Conditions</b>  | <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Agitation</b>           | <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Application Method</b>  | <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

<b>1<sup>st</sup> COAT</b>	<b>AMOUNT TO APPLY:</b> 8 mils (0.008"; 205 microns) Wet Film Thickness (WFT)
	<b>AIR DRY TIME AFTER APPLICATION:</b> 30 minutes - 1 hour
<b>2<sup>nd</sup> COAT</b>	<b>AMOUNT TO APPLY:</b> 8 mils (0.008"; 205 microns) Wet Film Thickness (WFT)
	<b>AIR DRY TIME AFTER APPLICATION:</b> 4 - 6 hours
<b>3<sup>rd</sup> COAT</b>	<b>AMOUNT TO APPLY:</b> 8 mils (0.008"; 205 microns) Wet Film Thickness (WFT)
	<b>AIR DRY TIME AFTER APPLICATION:</b> 30 minutes - 1 hour
<b>4<sup>th</sup> COAT</b>	<b>AMOUNT TO APPLY:</b> 8 mils (0.008"; 205 microns) Wet Film Thickness (WFT)
	<b>AIR DRY TIME AFTER FINAL COAT:</b> 5-7 days



<b>Additional Coats</b>	<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>
<b>Wet/Dry Film Build</b>	<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>
<b>Dry Time and Recoat Windows</b>	<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>
<b>Curing</b>	<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>
<b>Welding</b>	<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>
<b>Safety</b>	<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>
<b>Cleanup</b>	<ul style="list-style-type: none"> <li>• Use mineral spirits for clean up</li> </ul>

## Physical Properties

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

Property	STEEL-IT 1050B Aerosol
Color	Dove Gray, satin finish
Weight (calculated)	14 oz/can (397 g/can)
Coverage @ 3 mil (0.003"; 75 microns) DFT*	7.5 sq ft/can (0.7 sq m/can)

\* Values assume 20% loss due to overspray.

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.

STEEL-IT® is a registered trademark of Stainless Steel Coatings, Inc.

Version #: 01      Revision Date:      Issue Date: 25-Jun-24