

## OVERVIEW

CT6102-5 is a Silicon Aluminum coating applied using the Arc spray process. The coating is harder, will not gall as easily, is denser and more machinable than pure aluminum coatings. The material used to produce this coating meets Department of Defense Specification MIL-W-6712B, Table II, Silicon Aluminum.

## TYPICAL PROPERTIES

<b>Nominal Composition Cobalt:</b>	95% Al – 5% Si
<b>Bond Strength:</b>	9,210 psi on low carbon steel 4,250 psi on aluminum
<b>Coating Porosity:</b>	Less than 2%
<b>Coating Hardness:</b>	In excess of Rh 95
<b>Coating Density:</b>	2.41 gm/cc
<b>Coating Tensile Strength:</b>	3,700 psi
<b>As-sprayed Surface Roughness:</b>	150-300 RMS

## FOR THE FOLLOWING APPLICATIONS

CTS-6102-5 is used for any aluminum build-up on worn machine parts, for machine element work, for altering the shape of aluminum castings in most model work, for restoring mis-machined surfaces on aluminum components, or for repairing blow holes in aluminum castings.

These coatings are currently being used for the repair of worn parts of jet engines, and the restoration of dimension to jet engine parts which were mis-machined in manufacture.

## FINISHING

Finish coating by machining. Machining can be done with either high speed or carbide tools. Excellent finishes have been produced without lubricant using a “D” shape tungsten carbide tool bit with work rotating at 185 surface feet per minute, a traverse of .025” per revolution and infeed of .002”. Wet machining using a lubricant suitable for aluminum also produces satisfactory results.