

OVERVIEW

CT5600-1 is a pure molybdenum coating applied using the plasma spray process. The coating is hard, tough, dense, very well bonded and suitable for use as a wear resistant material where the lubricity of the molybdenum metal is an advantage. CT5600-1 works well in hard bearing applications where excellent non-scuffing properties are desirable. The coatings will resist wear, electric arc erosion, molten copper and molten iron or steel. The coating is normally self-bonding to steel, cast iron and iron based alloys and will bond well even to hardened surfaces. These coatings may not be used above about 600F in air because they oxidize. This is not a normally a problem in lubricated service or where the coating is in an inert atmosphere or immersed in molten metal during service.

TYPICAL PROPERTIES

Nominal Composition:	99+ % Molybdenum
Bond Strength:	In excess of 3,000 psi
Coating Hardness:	Rc 36-45

FOR THE FOLLOWING APPLICATIONS

CT5600-1 is used in applications where long term hard bearing wear is required. Such automotive components as shifter forks, synchro rings and piston rings have been sprayed for many years with this coating. In lubricated service molybdenum coatings last for many years. In addition to the automotive applications CT5600-1 is also used in casting of copper and steel.

Shifter fork typical coating thicknesses – Automotive .003-.005”, Light duty tractor/Truck .006-.010”, Heavy duty tractor .011-.013”.

FINISHING

Finish CT5600-1 by wet grinding with silicon carbide with 60 grit J or K wheels. Finishes are only fair with some particle pullout evident.

SPECIFICATIONS

The material of CT-5600-1 can meet the following specifications:

GEAE:	B50TF41 Cl. A
PWA:	1313
MSRR:	9507/19