TECHNICAL BULLETIN

NICKEL BASED HARDFACING CT3302-4

OVERVIEW

CT3302-4 is a Nickel Chromium Silicon Boron/ Tungsten Carbide material which, when sprayed with HVOF technology and then fused creates a very wear resistant layer. This layer exhibits better wear resistance in many applications than would be typical even of another fused coating with the same percentage of tungsten carbide due to the fine particle size of the carbide. In addition to the very high wear resistance, the coating also shows high impact resistance.

TYPICAL PROPERTIES

Nominal Composition:	45W, 7Cr, 3.4C, 1.3B, 2.2Si
Bond Strength:	Fused
Coating Porosity:	0%
Macrohardness:	Rc 60-67

Microhardness:	800-900 DPH-300
Thickness Limit:	.060” on OD components .030” on flat surfaces
Maximum Service Temp:	Estimated to be 1000ºF

FOR THE FOLLOWING APPLICATIONS

CT-3302-4 is used for high wear applications such as wire drawing capstans, pump sleeves, pump impellers, mechanical seal faces, feed screws, extruder screws, ball valves and hammer mill components.

FINISHING

Finish this coating by grinding with diamond wheels or lapping with diamond paste. Typical wheel recommendation is a 100 mesh nickel clad diamond in a resin bonded matrix. Large surfaces may require a softer wheel. Coolant must be flooded onto part and wheel during grinding.

Recommended lapping parameters are shown right:

Lapping Compound	**Finish in MicroInch AA *(approximate)***
30µ Diamond	3-5
15µ Diamond	1-2
9µ Diamond	1-2
.5µ Diamond	<1

SPECIFICATIONS

CT-2302-2 meets the following material specifications:

Meets CTS internal specification only

CTS-Midwest
5901 Creek Rd.
Cincinnati, OH 45242
(513) 793-0670 | F: (513) 793-4254

CTS-South
11766 NC Highway 210
Rocky Point, NC 28457
(910) 675-2909 | F: (910) 675-0806

CTS-East
80 Fadem Rd.
Springfield, NJ 07083
(973) 379-0003 | F: (973) 379-4066

CTS-Texas
4011 Chance Ln.
Rosharon, TX 77583
(281) 431-1629 | F: (281) 431-2179