



TESTED TO BE TOUGH STUFF

YOUR LEAD-FREE/COST COMPETITIVE SOLUTION

DRY AND LUBRICATED WEAR TESTING

ECO BRONZE™ has been independently tested and proven to be a superb alternative to the standard C93200 leaded tin bronze alloy. Best of all, it's an environmentally friendly, lead-free and a RoHS compliant bearing bronze.

Alloy	Cu (%)	Pb (%)	Sn (%)	Zn (%)	Fe (%)	Si (%)	Bi (%)	Al (%)	P (%)	UTS (ksi)	YS (ksi)	E (%)	Brinell 500kg Load	P Max	V Max	PV Max
C87850*	76			21		3			0.1	65	25	8	103	4,400	450	100,000
C93200*	83	7	7	3						35	20	10	65	4,000	750	75,000
C95400*	85				4			11		85	32	12	150	6,000	250	125,000
C89835	87		6.5	3			2.5			30	14	6	65	4,000	500	75,000

* ASTM B505 nominal chemistry, minimum mechanical properties

DRY WEAR

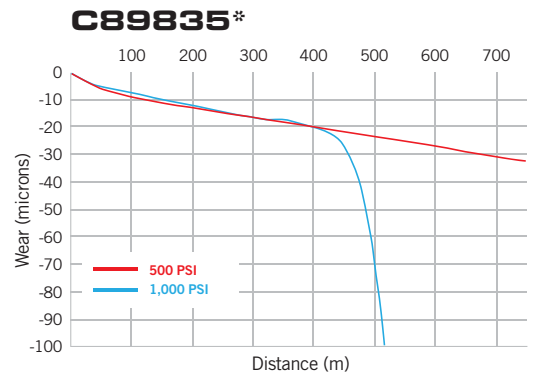
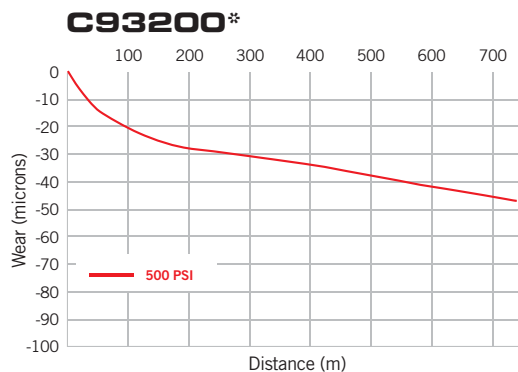
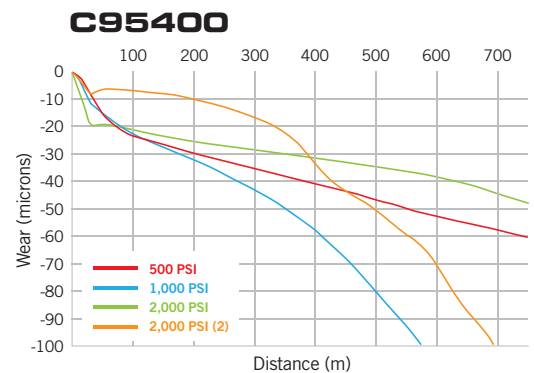
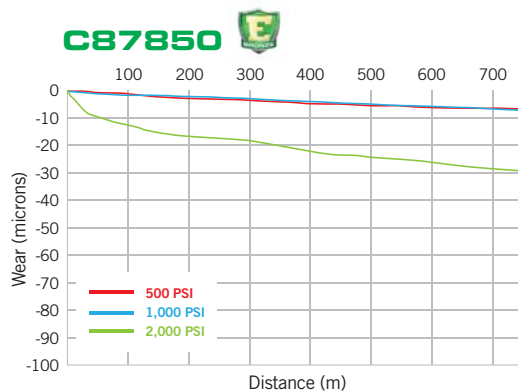
ECO BRONZE was subjected to a variety of performance tests by independent laboratories to prove its suitability as a quality bearing material, including simulated dry equipment startup.

TEST: The Dry Wear test was performed on a disc-style tribometer model TMO1. The counter face material was 4140 steel with hardness HRC 50 and ground to Ra 12µin. surface finish.

RESULTS: ECO BRONZE outperformed the other bearing materials, and showed the least amount and most predictable wear over the wide range of pressures and velocities.

Tests performed at:

- 500 PSI
- 1,000 PSI
- 2,000 PSI
- 2,000 PSI/Retest



* Note: C932 stopped at 500 psi, C89835 stopped at 1,000 psi due to material limitations.

ALLOYS TESTED

TEST

RESULTS

SAE 50 LUBRICATED WEAR

ECO BRONZE was put through a variety of performance tests by independent laboratories to prove its suitability as a quality bearing material, including simulated lubricated wear.

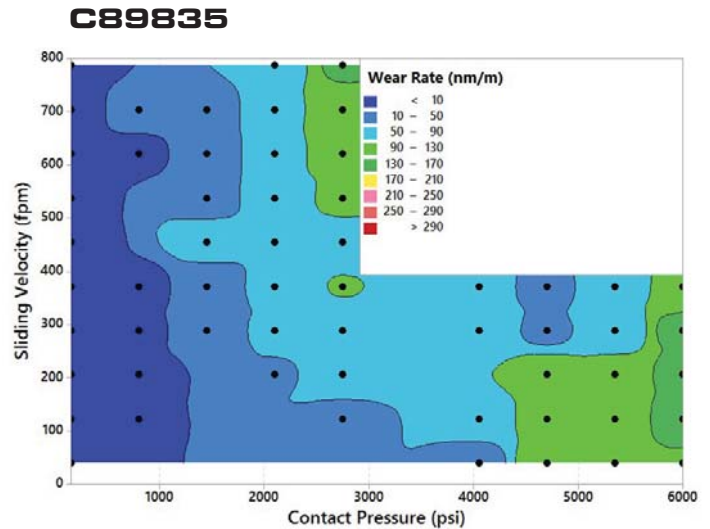
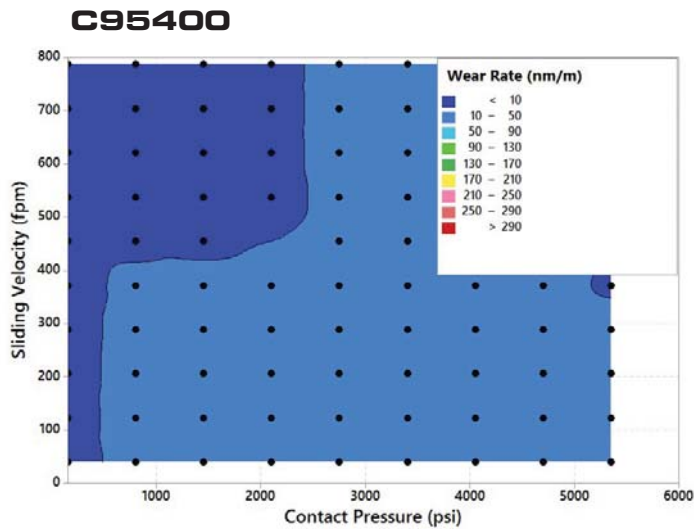
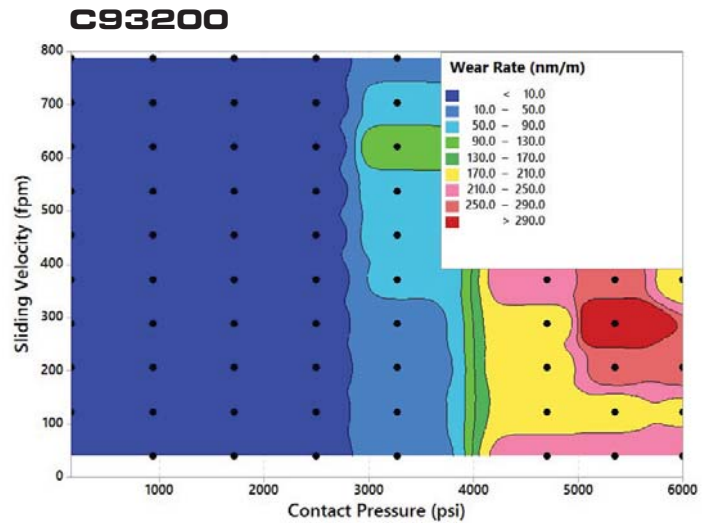
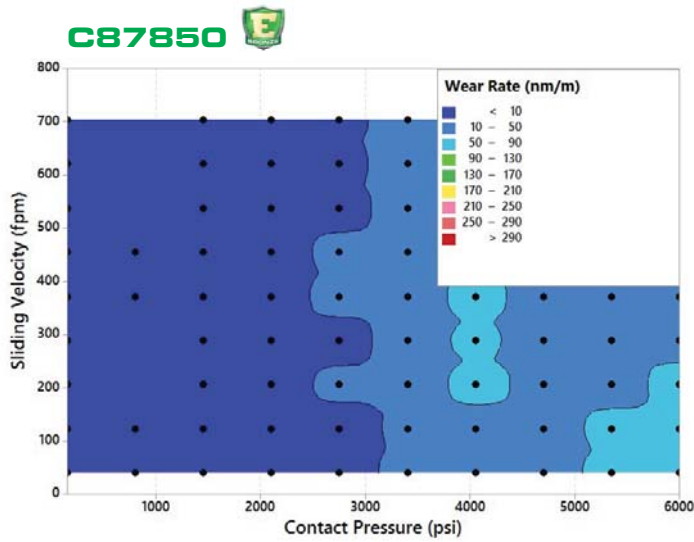
TEST: Simulated lubricated environment using a disc-style tribometer model TTMO1 utilizing SAE 50 oil. The counter face material was 4140 steel hardened to HRC 50 and ground to Ra 12µin. surface finish.

RESULTS: ECO BRONZE performed as well or better than the common bearing alloys. Best of all, it's an environmentally friendly lead-free, RoHS compliant bearing bronze.



TEST

RESULTS



MADE IN THE USA



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