wieland
concast

Hardiall® C72900 and Wieland Concast

Aircraft and aerospace

The aircraft and aerospace industry requires an alloy which demonstrates excellent lubricity, wear, and galling resistance such as Hardiall® C72900. Hardiall is ideal for applications where the load required exceeds the performance of copper-nickel-aluminum-based alloys.

Typical uses

- Landing gear bushings and bearings
- Control surface and actuator bushings and bearings
- Wing flap bearings
- Wheel bearings
- Brakes
- Door hardware
- Hydraulic actuators
- Valves
- Steering joints
- Helicopter controls
- Compression fit airframe fasteners
- Electronic system connectors

Key features and benefits:

- High strength
- Corrosion resistance
- Erosion resistance
- Magnetic resistance
- Excellent lubricity
- Excellent wear resistance
- Excellent machinability
- Easy implementation
- Galling resistance

Oil and gas

The oil and gas industry requires an alloy which provides outstanding metal-to-metal wear, as well as resistance to corrosion, temperature and pressure such as Hardiall® C72900. Hardiall supports both offshore and onshore systems utilizing both vertical and directional drilling products.

Typical uses

- Bushings
- Bearings
- Chemical processing equipment
- Components for oil refineries
- Fittings
- Steam fittings
- Drilling components
- Sucker rod
- Valve guide bushing couplings
- Springs
- Wire
- Marine components

Key features and benefits:

- High strength
- Corrosion resistance
- Erosion resistance
- Magnetic resistance
- Excellent lubricity
- Excellent wear resistance
- Excellent machinability
- Easy implementation
- Galling resistance

C72900 (Hardiall®) overview

Chemical composition

Ni + Co (%)	Sn (%)	Fe (%)	Zn (%)	Mn (%)	Cb (%)	Mg (%)	Pb (%)	Cu (%)
14.50-15.50	7.50-8.50	0.50	0.50	0.30	0.10	0.15	0.02	Rem.

Note: Single values represent maximums.

Stocked size schedules*

AMS 4596 solids

Size O.D.	Weight per inch	Weight per foot	Size O.D.	Weight per inch	Weight per foot	Size O.D.	Weight per inch	Weight per foot
0.750	0.143	1.714	2.250	1.286	15.427	3.750	3.571	42.853
1.000	0.254	3.047	2.500	1.587	19.046	4.000	4.063	48.758
1.250	0.397	4.761	2.625	1.750	20.998	4.500	5.142	61.709
1.500	0.571	6.857	2.750	1.921	23.046	5.000	6.349	76.184
1.750	0.778	9.333	3.000	2.286	27.426	5.500	7.682	92.182
1.875	0.893	10.713	3.250	2.682	32.188	6.000	9.142	109.705
2.000	1.016	12.189	3.500	3.111	37.330	6.750	11.570	138.845

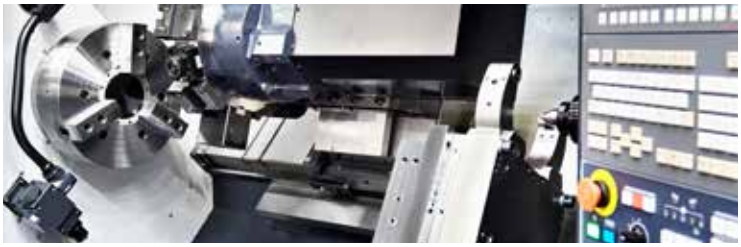
AMS 4597 solids

Size O.D.	Weight per inch	Weight per foot	Size O.D.	Weight per inch	Weight per foot	Size O.D.	Weight per inch	Weight per foot
0.750	0.143	1.714	1.250	0.397	4.761	1.750	0.778	9.333
1.000	0.254	3.047	1.500	0.571	6.857	2.000	1.016	12.189

AMS 4598 tubes

Nom. size I.D. x O.D.	Weight per inch	Weight per foot	Nom. size I.D. x O.D.	Weight per inch	Weight per foot	Nom. size I.D. x O.D.	Weight per inch	Weight per foot
3.000 x 4.500	3.015	36.179	3.500 x 5.000	3.374	40.492	6.440 x 7.660	4.718	56.615
			5.875	5.922	71.070	8.560	8.613	103.355

**Consult mill for other shapes/sizes.*



Wieland Concast is a supplier of Hardiall® C72900 produced by Lebronze alloys. This standard-stocked alloy is available to AMS 4596, 4597, and 4598 specifications.

NOTE: Hardiall is a registered trademark of Lebronze alloys.

Wieland Concast | 14315 State Route 113 | Wakeman, OH 44889
P 440-965-4455 | sales.concast@wieland.com | concast.com