

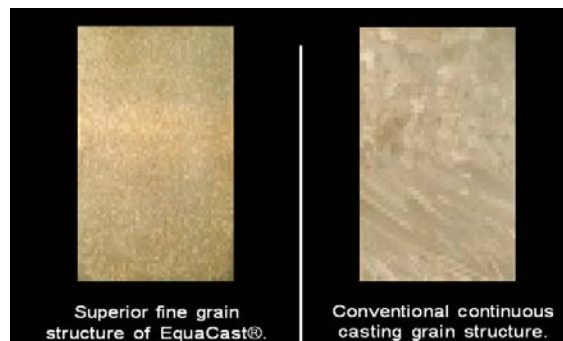
C95510

Materion Brush Performance Alloys' C95510 is an Aluminum-Nickel-Bronze alloy that combines high strength, ductility, and good abrasion resistance under severe loading conditions. This material, specified as AMS 4880, is frequently used for very demanding aerospace applications, including, but not limited to: bushings, spherical and rod end bearings, rub pads, and wear strips. This material is also commonly used for applications in the oil & gas and other durable goods markets.

Materion Brush Performance Alloys' 50,000 square foot mill in Lorain, Ohio is a state-of-the-art facility which utilizes EquaCast® technology. The EquaCast process produces an extremely uniform, fine grained microstructure and promotes excellent dispersion of alloying elements. This allows Materion Brush Performance Alloys to provide materials of unparalleled quality and consistency.

C95510 (AMS 4880) offers several significant advantages over other materials available in the marketplace due to the EquaCast process:

- **Higher and more consistent mechanical properties:** C95510 offers higher yield strength and ductility minimums on product over 1.0" according to AMS 4880. Additionally, Materion Brush Performance Alloys product offers typical mechanical property values of 20 - 30% above specification minimums.
- **Improved service life:** C95510 (AMS 4880) offers enhanced corrosion resistance and fatigue life due to the alloy dispersion and refined, "wrought-like" microstructure.
- **Superior quality:** Materion Brush Performance Alloys Vertical Continuous Casting Process is less likely to produce porosity than other casting methods used for manufacturing this product.
- **Ease of use:** The machinability of C95510 (AMS 4880) has been rated superior by customers from major airframers to small machine shops.
- **Cost effectiveness:** AMS 4880 is commonly allowed as a substitute for AMS 4640, saving weight and machining time.



C95510 CHEMICAL COMPOSITION (weight percent)

Aluminum	Nickel	Iron	Manganese	Zinc	Tin	Copper
9.7 – 10.9	4.5 – 5.5	2.0 – 3.5	1.5 max	0.3 max	0.2 max	78.0 min

Minimum Mechanical Properties of Quench Hardened and Temper Annealed AMS 4880 Castings

Product	Size Range	Tensile Strength (ksi)	Yield Strength (ksi)	Elongation %
Centrifugal Castings	0.250" - 1.0"	105.0	62.5	9 8
	1.0" - 17.0"	95.0	50.0	
Continuous Castings (C95510)	0.250" - 4.0"	105.0	62.5	9 9
	4.0" - 17.0"	95.0	56.0	

C95510 (AMS 4880) is truly a premium product at a competitive price. Standard sizes available from Materion Brush Performance Alloys are listed below. Size tolerances are specified to ASTM B505. Other sizes and shapes with outside diameters ranging from 1.0" to 17.0" available upon request. Full certifications supplied. For further information on C95510 materials, please contact us at 800-3754205.

Standard C95510 Tube Sizes	
1.00" ID x 2.00" OD	3.00" ID x 4.50" OD
1.25" ID x 2.25" OD	3.00" ID x 5.00" OD
1.50" ID x 2.50" OD	3.50" ID x 5.75" OD
1.75" ID x 3.00" OD	4.50" ID x 6.00" OD
2.00" ID x 3.00" OD	5.00" ID x 6.50" OD
2.00" ID x 4.00" OD	4.00" ID x 5.50" OD
2.25" ID x 3.25" OD	4.00" ID x 7.00" OD
2.50" ID x 3.50" OD	5.25" ID x 6.75" OD
2.00" ID x 4.00" OD	6.00" ID x 8.00" OD
2.00" ID x 3.75" OD	8.00" ID x 9.75" OD
2.75" ID x 4.25" OD	10.56" ID x 11.69" OD

Handling C95510 alloys in solid form poses no special health risk. Like many industrial materials, the metals in these products may pose a health risk if recommended safe handling practices are not followed. The Occupational Safety and Health Administration (OSHA) has set mandatory limits on occupational respiratory exposures. Read and follow the guidance in the Material Safety Data Sheet (MSDS) before working with this material. For additional information on safe handling practices or technical data on C95510 contact Materion's Customer Technical Service Department at 800-375-4205.

North American Service Centers – Sales Inquiries

For strip, wire and rod under 0.4" (10 mm) diameter
Elmhurst, IL
 TOLL FREE: 800.323.2438
 LOCAL: +(1) 630.832.9650
 FAX: +(1) 630.832.9657

For plate, tube, bar, and rod 0.4" (10 mm) diameter and over
Warren, MI
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 FAX: +(1) 586.772.2472

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To obtain a complete list of Materion's global distributor/agent network, visit us online at www.materion.com/BrushAlloys/ContactUs.

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MATERION CORPORATION
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