

Low Brass, named for its relatively low zinc content, is a choice of many design engineers for applications where strength and formability are required. Due to the higher content of zinc found in this alloy, compared to Red Brass it develops a beautiful antique brass color when chemically treated making it ideal from many decorative or architectural applications. Other advantages of C240 include: high solderability, high fatigue limit, and excellent grain size control. For more information contact Olin Brass Market Development Engineering at 618-258-5255, OlinBrass.com or email us at info@olinbrass.com.

Chemical Composition	
<b>Copper</b> <sup>1</sup>	<b>78.5-81.5%</b>
<b>Zinc</b>	<b>Remainder</b>
Lead	0.05% Max
Iron	0.05% Max

<sup>1</sup> Copper plus named elements, 99.8% min

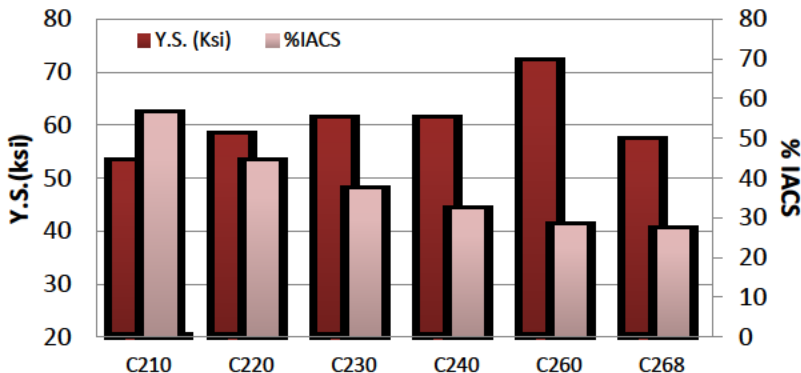


Figure 1: Comparison of Yield Strength and Electrical Conductivity performance of select Hard temper brass materials.

Physical Properties		
	English Units	Metric Units
Density	0.313 lb/in <sup>3</sup> @ 68°F	8.66 g/cm <sup>3</sup>
Thermal Conductivity	81 BTU-ft/ft <sup>2</sup> -hr-°F	139 W/mK
Electrical Resistivity	32.4 ohm circ mils/ft	5.39 microhm-cm
Electrical Conductivity (annealed)	32 % IACS*	0.186 megamho/cm
Modulus of Elasticity	16,000,000 psi	110 kN/mm <sup>2</sup>
Coeff. Of Thermal Expansion		
68-572°F (20-300°C)	10.6 PPM/°F	19.1 PPM/°C

\*International Annealed Copper Standard

Mechanical Properties							
Temper <sup>1</sup>	Tensile Strength		Yield Strength		% Elongation <sup>2</sup>	Typical 90° Bend Formability	
	ksi	N/mm <sup>2</sup>	ksi	N/mm <sup>2</sup>		GW/BW <sup>3</sup>	
Annealed (Soft) <sup>4</sup>	44-54	305-370	20	140	50	-	-
1/4 Hard	48-58	330-400	29	200	26	-	-
1/2 Hard	55-65	380-450	42	290	18	0.3	0.5
3/4 Hard	61-71	420-490	53	365	10	0.5	1.0
Hard	68-77	470-530	61	420	4	1.0	1.5
Extra Hard	78-87	540-600	68	470	2	1.5	2.8
Spring	85-93	585-640	76	525	1 min	3.0	4.5
Extra Spring	89-97	615-670	78	540	1 max		

<sup>1</sup> Mechanical properties subject to change. All rolled- tempers are accepted or rejected based on Tensile Strength.

<sup>2</sup> Nominal Values in 2" (51mm)

<sup>3</sup> DATA FOR REFERENCE ONLY. R/T = Bend Radius/Material Thickness <0.016" (0.4mm) thick, 11/16 (17.5mm) wide.

<sup>4</sup> Annealed temper are manufactured to a grain size only, consult mill for additional info.

<p><b>Olin Brass Headquarters</b> 4801 Olympia Park Plaza, Suite 3500 Louisville, KY 40241 Ph: 502-873-3000</p>	<p><b>GBC METALS ASIA PACIFIC PTE LTD</b> 1 Kim Seng Promenade Great World City, E Tower Singapore 237994 Ph: 65.6238.1155</p>	<p><b>GBC METALS LLC SHANGHAI</b> Room 2004 Aetna Tower No. 107 Zunyi Rd Shanghai 200051 China Ph: 86.21.6237.5898</p>
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**OLIN BRASS-HEADQUARTERS**

4801 Olympia Park  
Plaza, Suite 3500  
Louisville, KY 40241  
Ph: 502-873-3000

**OLIN BRASS - MILL**

285 Lewis & Clark Blvd.  
East Alton, IL 62024  
Ph: 618-258-5255

**BRYAN METALS INC.**

1103 South Main Street  
Bryan OH 43506-0487  
Ph: 419-636-4571  
Fx: 419-636-3994

**SOMERS THIN STRIP**

215 Piedmont Street  
Waterbury, CT 06706  
Ph: 203-597-5000  
Fx: 203-597-5081

**A.J. OSTER COMPANY**

180 ALEXANDRA WAY  
Carol Stream, IL 60188-2068  
Ph: 630-260-1040  
Ph: 800-323-9644  
Fx: 630-260-1102

**A.J. OSTER CARIBE, INC.**

Centro industrial Rio Canas  
Lote 29, P.M.B HC-01  
Box 29030  
Caguas, PR 00725  
Ph: 787-747-7575

**A.J. OSTER FOILS, INC.**

2081 McCrea Street  
Alliance, OH 44601-2793  
Ph: 330-823-1700  
Ph: 800-321-9750  
Fx: 330-823-1705

**A.J. OSTER WEST INC.**

22833 La Palma Avenue  
Yorba Linda, CA 92887-4767  
Ph: 714-692-1000  
Ph: 800-933-5933  
Fx: 714-692-1225

**A.J. OSTER COMPANY**

457 Industrial Drive  
Warwick, RI 02886  
Ph: 401-739-0800  
Fx: 401-739-1276

**INTERNATIONAL SALES OFFICES & FACILITIES****GBC METALS ASIA PACIFIC PTE LTD.**

1 Kim Seng Road Promenade  
Great World City, East Tower #13-04  
Singapore 237994  
Ph: 65.6238.1155  
Fx: 65.6238.0660

**GBC METALS LLC SHANGHAI**

Room 2004, Aetna Tower  
No. 107 Zunyi Road  
Shanghai 200051, China  
Ph: 86.21.6237.5898  
Fx: 86.21.6237.5805

**OLIN LUOTONG METALS (GZ) Co Ltd**

No. 8 Jung Gong Road, East District  
Guangzhou Economic Technological & Dev District  
Guangzhou, P.R. China 510530  
Ph: 86.20.8226.6818  
Fx: 86.20.8226.6718

**DOWA-OLIN METAL CORPORATION**

2630, Shingai  
Iwata-shi, Shiznoka-ken  
438, Japan  
Ph: 81.538.37.5111  
Fx: 81.538.37.0147

**OLIN BRASS - INTERNATIONAL DISTRIBUTORS****UNITED KINGDOM / IRELAND****Aurubis UK Ltd.**

Rabone Park, Smethwick  
West Midlands B66 2NN  
England  
Ph: 44 (0) 121 555 1199  
Fx: 44 (0) 121 555 1188  
Email: [info-uk@aurubis.com](mailto:info-uk@aurubis.com)  
Website: [www.aurubis.com](http://www.aurubis.com)

**EUROPE****Walter Türkis GmbH**

Struthstrasse 35  
55743 Idar-Oberstein  
Germany  
Ph: 49 (0) 6781 62-0  
Fx: 49 (0) 6781 62-28  
Email: [service@tuerkis-schneid-center.de](mailto:service@tuerkis-schneid-center.de)  
Website: [www.tuerkis-schneid-center.de](http://www.tuerkis-schneid-center.de)

**OLIN BRASS MEXICO S.A. de CV**

Av. La Griega # 117  
Parque Industrial Queretaro  
Santa Rosa, Jaurgui  
Queretaro, Mexico 76220  
Ph: 52 442 2 29 40 00  
Fx: 52 442 2 29 40 29