

Bronze Powders

We are the world's largest producer of spherical bronze powders. Initially developed to satisfy the needs of the high reliability metallic filter market, this material has demonstrated its adaptability in a rapidly expanding range of applications. Its availability in either partially diffused or pre-alloyed bronze form, as well as closely controlled particle size ranges, offers the materials engineer a versatile and adaptable raw material.

Applications include: metal impregnated plastics, aerospace and industrial brake linings, impregnated metal matrix bearings, shaped explosive charges, metal bonded

diamond cutting and grinding tools, gaseous and liquid filtration, flame arrestors, sound attenuation, industrial coatings and even as a fine art material.

In addition to standard grade Spherical Bronzes, we would be pleased to work with you to develop custom materials to meet your specific need.

We have been at the forefront of powder metal technology for over 80 years. Ever since our pioneering days, we've set the standards and expanded applications to the P/M industry.

“HP” Spherical Bronze

“HP” Spherical Bronzes are the coarsest of the bronze materials and are offered in six standard grades of very narrow particle size ranges. “HP” Spherical Bronze is produced by partially diffusing a tin coating on an interior

copper particle. The production process enables a virtually mono-sized particle to be formed granting the materials designer a highly controlled and, therefore, reproducible consistent product.

“HP” Spherical Bronze Specifications

Grade	Tin %	A.D. g/cc	Screen Analysis—Mesh—%						
			+10	+20	+30	+40	+50	+60	+70
12 HP	2.5-3.5	4.7-5.3	2 max	97 min	1 max				
23 HP	3.5-4.5	4.6-5.2		2 max	97 min	3 max			
31 HP	4.0-5.0	4.5-5.1		2 max	20-40	60-80	3 max		
34 HP	4.0-5.0	4.5-5.1			3 max	95 min	3 max		
46 HP	5.5-6.5	4.5-5.1				1 max	95 min	5 max	
68 HP	6.5-7.5	4.4-5.0					5 max	95 min	5 max

“A” Spherical Bronze

“A” Spherical Bronze is made by partially diffusing a tin coating on an atomized spherical copper powder. “A” Spherical Bronze is available in four standard grades

reflecting a generally finer particle size distribution than the “HP” Spherical Bronzes.

“A” Spherical Bronze Specifications

Grade	Tin %	A.D. g/cc	Screen Analysis—Mesh—%						
			+60	+80	+100	+150	+200	+325	–325
61 A	8.0-9.5	4.4-5.0	2 max	40-70	30-60	10 max			
83 A	8.0-9.5	4.4-5.0		2 max	20-45	50-70	15 max		
103 A	8.5-10.0	4.4-5.0			2 max	20-40	35-55	40 max	10 max
153 A	9.0-10.5	4.4-5.0				2 max	30-60	35-65	10 max

“P” Spherical Bronze

“P” Spherical Bronze is a fully alloyed bronze particle. Available in seven standard grades representing particle size ranges from moderately coarse to fine. All “P”

Spherical Bronzes are available as “PP” Bronzes with a nominal 0.3% Phos content for increased sintered strength.

“P” Spherical Bronze Specifications

Grade	Tin %	A.D. g/cc	Screen Analysis—Mesh—%											
			+20	+30	+40	+50	+60	+80	+100	+150	+200	+230	+325	–325
250 P	9.0-10.5	4.5-5.5	5 max		85 min	10 max								
150 P	9.0-10.5	4.5-5.5		5 max			85 min	10 max						
90 P	9.0-10.5	4.5-5.5				3 max			90 min	10 max				
60 P	9.0-10.5	4.5-5.5						3 max		85 min	10 max			
40 P	9.0-10.5	4.5-5.5							3 max			90 min	10 max	
25 P	9.0-10.5	4.5-5.5									10 max		80 min	15 max
10 P	9.0-10.5	4.5-5.5											25 max	75 min

Specialty Bronze Powder

As the leader in the advancement of bronze powder materials for industry, we have developed a variety of bronze powders for new applications, including flame-spraying, brazing, strip-bearings, metal-bonded grinding wheels and cutting tools, and metal filled plastics for bearings, decorative, conductive, and high strength applications.

Our capabilities have enabled us to produce various alloys, particle size ranges and particle shapes from highly spherical to irregular. We would be pleased to put our more than 80 years of metal powder experience to work to help you design your bronze metal powder solution.

Specialty Bronze Powder Specifications

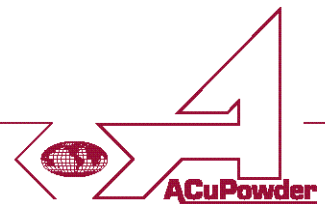
Grade	Cu %	Sn %	Other %	A.D. g/cc	Screen Analysis—Mesh—%				Product Description
					+100	+200	+325	–325	
101	Bal	9.0-11.0	N.A.	2.4-3.0	0.5 max	10-25	20-40	35-60	Partially Diffused
201	Bal	9.0-11.0	N.A.	2.4-3.0		1.0 max	Bal	70 min	Partially Diffused
5070	Bal	19.0-21.0	N.A.	2.45-2.85	(+60) 0.5 max			35-55	Partially Diffused
5657C	Bal	9.0-11.5	.35 Phos	4.5-5.5			10	90	Spherical Alloy
5579	Bal	9.5-10.5	N.A.	4.5-5.5	TR	Bal	40-60	30-50	Spherical Alloy

The information contained herein is presented as a guide for your investigation and verification. Products mentioned are sold without warranty, expressed or implied, that the goods shall be fit for any particular purpose of or use by the purchaser. Purchasers must conduct their own tests to determine the suitability for their intended purpose. We assume no liability for infringement of any patent resulting from the application of this information. By reason of lack of knowledge as to specific uses, no representation or warranty is made regarding the safety of these products or materials under the Federal Food, Drug and Cosmetics Act.

*From industry pioneer to industry leader,
we are innovation in motion*

ACuPowder International, LLC

901 Lehigh Avenue, Union, NJ USA
Phone: (908) 851-4500 X590 Fax: (908) 851-4597



We have been part of your lives for over 80 years