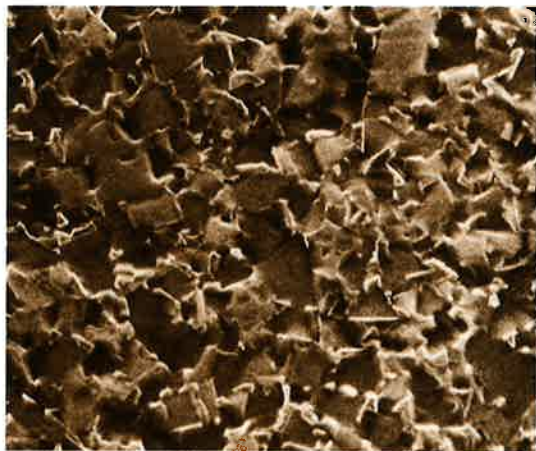


GENERAL ELECTRIC ANGSTROMET™

TUNGSTEN CARBIDE POWDERS FOR YOUR TOUGHEST HARDMETAL APPLICATIONS.



1,500X Optical



10,000X SEM

PRODUCT DESCRIPTION

Angstromet™ tungsten carbide powders are a specially formulated line of powders designed to deliver uniformly superior fine grained structures. They enable you to complement higher hardness with higher toughness in your hardmetal process.

General Electric combined years of experience in controlling particle size distribution with new process technology to develop Angstromet powders. The standard Angstromet product, AM-7000, a 0.70 type lab milled

Fisher Sub Sieve Size powder, is typically doped with vanadium carbide to inhibit grain growth. Other variations can be custom-formulated to meet your specific needs.

PRODUCT PERFORMANCE

AM-7000 powder has been milled and sintered in GE's hardmetals laboratory to produce a 6% cobalt hardmetal grade whose structure is shown in the photomicrographs. Testing and evaluation of this hardmetal grade showed Rockwell A hardness values which have ranged between

92.7 and 93.0 combined with transverse rupture strengths in excess of 350 ksi. GE's experience with fine grained structures has shown that there is a high sensitivity to grade powder milling and sintering conditions that must be carefully considered in achieving the desired structure and properties. Therefore, General Electric provides a full complement of application engineers to help you optimize Angstromet powder products in your hardmetal process.

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TYPICAL ANGSTROMET™ POWDER VALUES FOR AM-7000

Lab Milled Fisher:	.75	
Particle Distribution (Lab Milled):	0-1	68
	1-2	19
	2-3	6
	3-4	4
	4-5	3
Carbon Chemistry (W/O):	Total	- 6.14
	Free	- 0.03 .05
	Combined	- 6.11
Other Chemistry (PPM):	Oxygen	- 1100
	Vanadium	- 1200
	Tantalum	- Nil
	Chromium	- Nil
	Niobium	- Nil

ORDERING INFORMATION

Standard Angstromet™ tungsten carbide powder can be ordered by name or by the abbreviation AM-7000. AM-7000 tungsten carbide powder should be ideal for typical 6% cobalt grades, but General Electric will be happy to develop a specific formulation if needed.

Contact your Sales Operation representative or:

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