

# Thermal and Cold Spray Powders

## Thermal Spray (TS)

Metal powders are heated and accelerated by an energy source, such as chemical combustion (flame) or electrical (plasma or arc), to melt or soften them. Their high temperature and velocity result in significant droplet deformation on impact at a surface, producing thin layers that conform and adhere to the surface and build up rapidly.

## Cold Spray (CS)

“Cold Spray”: ductile metal powders are gas dynamically accelerated to supersonic velocities. They plastically deform on impact fusing to the substrate without melting.

**ACuPowder** provides a variety of copper and bronze powders with the tight particle size control needed for thermal and cold spraying.

Grade	A.D. (g/cc)	Nominal Mesh	-325 (%)	Comments
<b>Copper</b> 153A	5.0	-140/+325	5	Spherical TS
155A	4.8	-325	99	Spherical TS, CS
500A	4.4	-500	99	Spherical TS, CS
635	3.5	-635	99	Spheroidal CS
<b>Bronze</b> 10P	5.0	-200	85	90Cu/10Sn Alloy Spherical TS
5657C	4.9	-325	99	90Cu/10Sn/0.3P Alloy Spherical TS, CS
<b>Tin</b> 301	3.1	-325	98	Irregular TS, CS

**For additional information regarding these and other ACuPowder products please contact Technical Services**

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ISO 9001

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

ISO 14001

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