

# Friction Products – Sintered & Organic

## Sintered Friction Products (S)

Applications of these materials include brakes and clutches. They can consist of a mixture of metal powders including copper, tin, bronze, brass, nickel, iron, zinc and lead, along with a range of friction modifiers such as abrasives and solid lubricant. When sintered, the resultant metal matrix material achieves the desired balance of mechanical/frictional properties, heat conductivity, wear and corrosion resistance, low noise level and high temperature performance.

## Organic Based Friction Products (O)

Metal powders are usually added to organic based (non-sintered) friction products to increase heat conductivity, alter wear properties, provide smoother braking action and reduce brake squeal. **ACuPowder** provides many grades of copper, tin, bronze, brass and nickel to meet the needs of both segments of the Friction Products Industry.

Listed under the “Comments” below, **S** denotes **Sintered** and **O** denotes **Organic** Base applications

Grade	A.D. g/cc	Nominal Mesh	- 325 (%)	Comments
<b>Copper</b> 180	2.8	- 100	50	- 100 Higher AD <b>S</b>
151	2.5	- 140	50	- 140 Medium AD <b>S</b>
165	2.7	- 140	58	- 140 Higher AD <b>S</b>
220LD90*	2.2	- 140	90	Lower AD, Higher GS
240MD90*	2.4	- 140	90	Medium AD, High GS
EL-215	2.2	- 200	90	Dendritic Cu, High GS <b>S</b>
EL-135	1.3	- 200	93	Dendritic Cu, Higher GS <b>S</b>
154	5.4	- 100	35	Spherical Copper <b>O</b>
<b>Tin</b> 101	3.2	- 100	96	Fine, nodular <b>S</b>
<b>Bronze</b> 5657	5.3	- 140	40	89.7Cu/10Sn/0.3P alloy, spherical <b>O</b>
5631	3.7	- 200	80	89Cu/9Sn/2Zn alloy, irregular <b>S,O</b>
<b>Brass</b> 8020U	2.9	- 60	40	80Cu/20Zn, irregular <b>S,O</b>
<b>Nickel</b>	ACuPowder provides Inco Nickel Powders to this market-see Nickel Bulletin			

\*Manufactured in our TN Plant

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