

**CMW® ELKONIUM 217 Silver Cadmium Alloy**

Category : Metal , Nonferrous Metal , Precious Metal , Silver Alloy

**Material Notes:**

The alloying of silver with cadmium produces materials with good arc extinction, good corrosion resistance and low contact resistance characteristics and provides them with good switching capability in AC circuits. They have low transfer characteristics in some DC applications. The alloying increases the strength and hardness, but substantially reduces the thermal and electrical conductivity and thus limits their current handling capability. The silver-cadmium alloy contacts are ductile materials and can be supplied in shapes and sizes similar to fine silver. ELKONIUM® 217 alloy has good arc interruption and anti-welding characteristics and has been used in line starters, solenoid contactors, automotive starters and other power switching applications for many years. However, more recently it has been replaced with the higher conductivity silver-cadmium oxide alloys of CMW D54F, D55F, D54X and D55X. Information provided by CMW Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_CMW-ELKONIUM-217-Silver-Cadmium-Alloy.php](http://www.lookpolymers.com/polymer_CMW-ELKONIUM-217-Silver-Cadmium-Alloy.php)

Physical Properties	Metric	English	Comments
Density	10.2 g/cc	0.368 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell 15T	51	51	annealed
	83	83	cold worked
Tensile Strength, Ultimate	193 MPa	28000 psi	annealed
	400 MPa	58000 psi	cold worked
Elongation at Break	5.0 %	5.0 %	cold worked
	55 %	55 %	annealed

Component Elements Properties	Metric	English	Comments
Cadmium, Cd	15 %	15 %	
Silver, Ag	85 %	85 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000490 ohm-cm	0.00000490 ohm-cm	35 % IACS

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