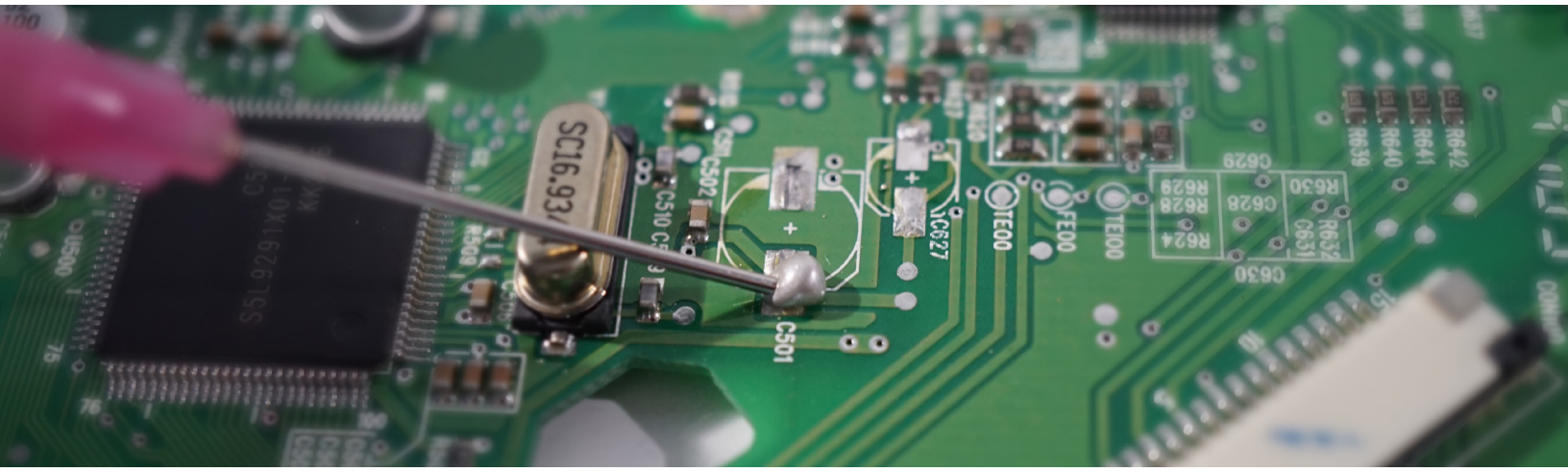
Electrically Conductive Adhesives



Silver Conductive Epoxy for the Assembly and Repair of Electronics

MG Chemicals offers silver conductive epoxy for the assembly and repair of electronics. It provides strong adhesion to many surfaces where soldering is not possible.

Features and Benefits

- Creates strong permanent electrical connections
- Excellent electrical and thermal conductivity
- Room temperature storage

Applications

- Repairing damaged circuits
- Creating jumpers, bridging, and gap filling
- Bonding heat sensitive components
- Bonding to conductive polymers
- Bonding to flexible circuits
- Bonding to gold, aluminum, brass, and bronze
- Bonding to glass
- Die attachment in LEDs and semiconductors

1-Part – Unlimited Working Time

9410 – Resistivity of 1.8 x 10^{-3} Ω·cm, T_g of 96˚C, heat cure only

9400 – Resistivity of 3.1 x 10^{-4} Ω·cm, T_g of 36˚C, heat cure only

2-Part – 20 Minute Working Time

8331D – Resistivity of 1.8 x 10^{-3} Ω·cm

8330D – Resistivity of 5.3 x 10^{-4} Ω·cm

2-Part – 4 Hour Working Time

8331S – Resistivity of 6.0 x 10^{-3} Ω·cm, heat cure only

8330S – Resistivity of 7.0 x 10^{-4} Ω·cm, heat cure only

MG Chemicals 1210 Corporate Drive, Burlington, Ontario, Canada L7L 5R6
North America: +(1)800-340-0772 **International:** +(1) 905-331-1396 **Europe:** +(44)1663 362888

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Electrically Conductive Adhesives

	8330D	8331D	8330S	8331S	9400	9410
UNCURED PROPERTIES						
Number of components	2	2	2	2	1	1
Mixed density [g/mL]	3.22	2.40	3.06	2.42	3.14	2.34
Working time	20 min	20 min	4 h	4 h	Unlimited	Unlimited
Service cure @ 22 °C	65 min	65 min	—	—	—	—
Room temp. cure [h]	6	6	Heat cure	Heat cure	Heat cure	Heat cure
Heat cure [min @ °C]	10 @ 65 5 @ 80	10 @ 65 5 @ 80	120 @ 65 60 @ 80 30 @ 100	120 @ 65 60 @ 80 30 @ 100	120 @ 70 30 @ 80	60 @ 90 30 @ 100 7 @ 120
CURED PROPERTIES						
Resistivity [Ω·cm]	5.3×10^{-4}	1.8×10^{-3}	7.0×10^{-4}	6.0×10^{-3}	3.1×10^{-4}	1.8×10^{-3}
Service temperature range [°C]	-50 to 150	-50 to 150	-40 to 150	-40 to 150	-55 to 140	-65 to 145
Glass transition temperature (T_g) [°C]	40	35	34	34	36	96
CTE prior T_g [ppm/°C]	63	58	97	78	76	42
CTE after T_g [ppm/°C]	363	234	208	158	100	150
Thermal conductivity @ 25 °C [W/(m·K)]	2.0	1.5	2.4	1.3	4.7	1.1
Thermal diffusivity @ 25 °C [mm^2/s]	1.1	0.9	1.2	0.7	2.2	0.7
Specific heat capacity @ 25 °C [J/(g·K)]	0.6	0.7	0.6	0.8	0.7	0.8
Color	Silver grey	Silver grey	Silver grey	Silver grey	Silver grey	Silver grey
Hardness	84D	78D	73D	60D	74D	70D
Tensile strength [N/mm^2]	8.3	13	9.0	14	2.9	N/A
Compressive strength [N/mm^2]	75	69	36	65	18	26
Lap shear (stainless steel) [N/mm^2]	3.6	5.6	1.7	4.5	2.9	2.6
Lap shear (aluminum) [N/mm^2]	2.6	5.1	1.2	7.1	3.2	2.8

Refer to TDS for more information.

AVAILABLE PACKAGING						
Net content	6 mL (2 syringe kit)	6 mL (2 syringe kit)	6 mL (2 syringe kit)	6 mL (2 syringe kit)	3 mL (syringe)	3 mL (syringe)
	50 mL (2 jar kit)	50 mL (2 jar kit)	50 mL (2 jar kit)	50 mL (2 jar kit)	30 mL (syringe)	30 mL (syringe)
	—	—	200 mL (2 can kit)	200 mL (2 can kit)	—	—

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