Electrically Conductive Adhesive Comparison Chart

Uncured Working Properties	***8330***	***8330S***	***8331***	***8331S***
Mix Ratio by Volume (A:B)	1:1	1:1	1:1	1:1
Working Life	10 min	4 h	10 min	4 h
Full Cure @22 °C [72 °F]	24 h	—	24 h	—
Full Cure @65 °C [149 °F]	20 min	2 h	15 min	2 h
Shelf Life	≥3 y	≥3 y	≥3 y	≥3 y

Cured Properties	***8330***	***8330S***	***8331***	***8331S***
Color	Silver Grey	Silver Grey	Silver Grey	Silver Grey
Hardness	83D	73D	70D	73D
Outgassing (Total Mass Loss) @24h	—	0.40%	6.27%	0.43%
Mechanical Properties				
Tensile Strength	6.3 N/mm^2 [910 lb/in^2]	9.0 N/mm^2 [1 300 lb/in^2]	6.28 N/mm^2 [911 lb/in^2]	14 N/mm^2 [2 000 lb/in^2]
Elongation %	—	7.8%	0.3%	5.3%
Compressive Strength	18 N/mm^2 [2 700 lb/in^2]	36.0 N/mm^2 [5 200 lb/in^2]	13 N/mm^2 [1 900 lb/in^2]	65 N/mm^2 [9 400 lb/in^2]
Lap Shear Strength [a)]	6.5 N/mm^2 [940 lb/in^2]	1.3 N/mm^2 [190 lb/in^2]	8.0 N/mm^2 [b)] [1 200 lb/in^2] [b)]	1.1 N/mm^2 [160 lb/in^2]
Electrical Properties				
Volume Resistivity	0.0010 Ω·cm	0.0007 Ω·cm	0.007 Ω·cm	0.0060 Ω·cm
Thermal Properties				
Glass Transition Temperature (T_g)	51 °C	34 °C	50 °C	34 °C
CTE prior T_g	91 ppm/°C	97 ppm/°C	54 ppm/°C	78 ppm/°C
CTE after T_g	278 ppm/°C	208 ppm/°C	169 ppm/°C	158 ppm/°C
Thermal Conductivity @25 °C [77 °F]	1.63 W/(m·K)	1.75 W/(m·K)	0.903 W/(m·K)	0.85 W/(m·K)
Constant Service Temperature	-55 to 150 °C [-67 to 302 °F]	-40 to 150 °C [-40 to 302 °F]	-55 to 150 °C [-67 to 302 °F]	-40 to 150 °C [-40 to 302 °F]

a) Tested with stainless steel
b) Tested with aluminum

29 March 2016