



Epoxy Adhesive Comparison Chart

Uncured Working Properties	Standards	8330	8331	8330S	8331S	8329TCM	8329TCS
A:B mix ratio (by Vol.)		1:1	1:1	1:1	1:1	1:1	1:1
Viscosity Part A (cP)	ASTM D2983	TBD	—	—	—	1,300,000	8,800,000
Viscosity Part B (cP)	ASTM D2983	TBD	—	—	—	6,000,000	780,000
Working Life (min)		TBD	10	240	240	45	240
Cure time <i>at room temp.</i> (min or h)		TBD	5 h	96 h	96 h	24 h	96 h
<i>at 65 °C</i> (min)		TBD	15	120	120	60	120
Shelf Life (year)		≥ 3	≥ 3	≥ 3	≥ 3	≥ 2	≥ 3
Cured Properties	Standards	8330	8331	8330S	8331S	8329TCM	8329TCS
Color		Silver Grey	Silver Grey	Silver Grey	Silver Grey	Dark Grey	Dark Grey
Hardness	Shore D	83D	70D	73D	73D	76D	62D
Outgassing (Total Mass Loss) @24h	ASTM E595	TBD	6.27%	0.4%	0.4%	3.54%	0.8%
Mechanical Properties							
Tensile strength (lb/in ²)	ASTM D638	TBD	911	1,300	2,000	1,400	1,650
Elongation %	ASTM D638	TBD	0.3	7.8%	5.3%	1.8%	7.0%
Young's modulus (MPa)	ASTM D638	TBD	—	220	760	—	310
Compressive strength (lb/in ²)	ASTM D695	TBD	1900	5,200	9,400	4,900	6,200
Lap shear strength (lb/in ²) <i>AI 5052</i>	ASTM D1002	TBD	1,200	200	690	1,200	1,100
Electrical Properties							
Volume resistivity (Ω·cm)	ASTM D257	TBD	0.0174	0.0007	0.0060	9E12	2E13
Dielectric strength for 1/8" (V/mil)	ASTM D149	TBD	—	—	—	195	165
Breakdown Voltage for 1/8" (V)	ASTM D149	TBD	—	—	—	24,300	23,900
Dielectric constant @1 MHz	ASTM D150	TBD	—	—	—	5.43	5.48
Dielectric dissipation @1 MHz	ASTM D150	TBD	—	—	—	0.025	0.024
Thermal Properties							
Tg, glass transition temp. (°C)	ASTM D3638	TBD	50	34	34	46	20
CTE before Tg (ppm/°C)	ASTM D257	TBD	54	97	78	71	53
CTE after Tg (ppm/°C)	ASTM D257	TBD	169	208	158	131	137
Thermal Conductivity (W/(m·K))	ASTM E1530	TBD	0.9	1.75	0.95	1.36	1.44
Constant service temp (°C)		TBD	-55 +150	-40 +150	-40 +150	-65 +165	-65 +165
Max withstand temperature (°C)		TBD	+160	+160	+160	+200	+200

TBD = To be determined