



Epoxy Comparison Chart

Liquid Properties

Density – Resin (g/ml)
 Density – Hardener (g/ml)
 Viscosity – Resin (mPa @ 23°C)
 Viscosity – Hardener (mPa @ 23°C)
 Viscosity – Mixed (mPa @ 23°C)
 Mix Ratio by Weight
 Mix ratio by Volume
 Usable Life (150g @ 25°C)
 Gel Time (150g @ 25°C)
 Initial Cure Time (@ 25°C)
 Cure Time (@ 60°C)
 Cure Time (@ 80°C)
 Resin Colour
 Hardener Colour
 Mixed colour
 Storage Conditions
 Shelf Life
 Peak Exotherm (150g @ 25°C)
 Shrinkage % (volume)

PX178H	PX314R	PX439F	PX439N	PX439XS	PX459E	PX672C	PX697C	PX700K	PX771C	PX804C	PX900D
1.17	1.9	2.3	2.0	2.2	1.3	1.1	1.9	1.8	1.1	1.8	1.2
0.97	0.90	0.90	0.90	0.96	0.90	1.00	1.00	1.00	1.00	1.00	1.00
200000	20000	40000	40000	50000	6000	1500	60000	80000	1100	60000	1100
500	50	150	150	200	150	70	10000	350	180	350	50
10000	9000	3000	3400	9500	1500	300	30000	12500	9000	15000	650
2.0:1	17.0:1	10:1	13.8: 1	9.6:1	4.7:1	2.4:1	4.2:1	9.4:1	3.03:1	8.6:1	2.6:1
1.7:1	8.4:1	4.8:1	6.2:1	4.3:1	3.5:1	2.0:1	2.2:1	5.3:1	2.7:1	4.8:1	2.1:1
8 min	90 min	240 min	240 min	240 min	60 min	30 min	240 min	120 min	30 min	120 min	240 min
12 min	360 min	360 min	360 min	360 min	90 min	50 min	360 min	360 min	60 min	360 min	360 min
4 hrs	24 hrs	24 hrs	24 hrs	36 hrs	24 hrs	24 hrs	36 hrs	24 hrs	24 hrs	24 hrs	36 hrs
2 hrs	4 hrs	2 hrs	4 hrs	8 hrs	4 hrs	2 hrs	4 hrs	2 hrs	2 hrs	2 hrs	4 hrs
1 hr	2 hr	1 hr	2 hr	4 hrs	2 hrs	1 hr	2 hr	1 hr	1 hr	1 hr	2 hr
Clear	Beige	Black	Grey	Black	Black	Black	Beige	Black	Clear	Black	Clear
Clear	Black	Clear	Black	Clear	Clear	Clear	Brown	Amber	Amber	Amber	Amber
Pale Amber	Black	Black	Black	Black	Black	Black	Beige	Black	Amber	Black	Natural
10-25°C	10-25°C	10-25°C	10-25°C	10-25°C	10-25°C	10-25°C	10-25°C	10-25°C	10-25°C	10-25°C	10-25°C
12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months	12 months
120	50	50	40	40	60	70	40	40	90	40	40
0.8	0.3	0.3	0.3	0.3	0.4	0.5	0.3	0.3	0.6	0.3	0.6

Cured System

Thermal Conductivity (W/mK)
 Density – Cured (g/ml)
 Temperature Range (°C) *
 Dielectric Strength (kV/mm)
 Volume Resistivity (ohm-cm)
 Shore Hardness
 Flame Retardency (UL94-V0)
 Tensile Strength (Mpa)
 Compressive Strength (Mpa)
 Deflection Temperature (°C)
 Coefficient of Expansion (ppm/°C)
 Loss Tangent @ 50 Hz
 Permittivity @ 50 Hz
 Continuous Tracking Index (V)
 Water Absorption (30 days @ 20°C)
 Elongation at Break %

0.25	0.65	1.05	1.20	1.3	0.40	0.25	0.49	1.00	0.21	0.85	0.21
1.1	1.8	1.8	2.0	2.0	1.2	1.1	1.6	1.7	1.1	1.7	1.1
-40 to +120	-40 to +150	-40 to +150	-40 to +150	-40 to +180°C	-40 to +130	-40 to +120	-40 to +130	-40 to +130	-40 to +150	-55 to +130	-40 to +180
18	18	18	18	20	18	18	18	18	20	18	22
12	14	13	12	12	12	14	14	12	13	11	13
D80	D90	D60	D90	D90	D85	D80	D70	D80	D85	D80	D90
No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No
35	60	35	65	70	30	55	60	50	70	50	80
55	80	Flexible	80	145	70	40	80	60	95	60	80
40 – 50	60	<40	100	145	60	45	50	50	60	50	140
60 – 80	35-45	55-65	35-45	30-40	50-70	80-100	60-80	40-50	65-75	35-55	65-75
0.09	0.045	0.09	0.045	0.040	0.055	0.060	0.045	0.060	0.040	0.060	0.040
5.1	5.9	5.4	4.99	4.8	4.8	3.8	5.9	4.8	3.9	4.8	3.8
>600	>850	>600	>850	>850	>850	>850	>850	>850	>850	>850	>850
1.1	0.6	0.5	0.5	0.1	0.5	0.3	0.6	0.7	0.5	0.3	0.3
2-5	2-3	5-10	1-3	1-3	2-5	4-5	3-5	2-5	3-5	2-5	1-3

Approvals

RoHS & WEEE Compliant

Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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* application & geometry dependant