

# CONAPOXY EPOXY FILLED SYSTEMS

Flame retardant, non-abrasive epoxy systems. Exhibit excellent resistance to thermal shock, low exotherm, and good electrical properties typified by very good arc resistance.

High Elongation (22%), low exotherm, flame retardant system with long pot life and convenient mix ratio.

Fast curing, flame retardant-system. Non-abrasive filler.

Low viscosity, ambient cure, flame retardant system. Non-abrasive filler. Not available in Europe.



## Description

CONACURE	CONAPOXY FR-1047™ with			CONAPOXY™ FR-1810 Black	CONAPOXY™ FR-1820 Black	CONAPOXY™ FR 1830 Black
	EA-02	EA-028	EA-87	Part A / Part B	Part A / Part B	Part A / Part B
<b>UL Recognition</b>	UL 94 V-O	UL 94 V-O & UL 94 5VA		UL 94 V-O	UL 94 V-O	UL 94 V-O
<b>Typical Handling Properties</b>						
Mix Ratio by Weight, Resin/Hardener	100 / 4.5	100 / 11	100 / 13	1 / 1	100 / 25	100 / 20
Mix Ratio by Volume, Resin/Hardener	100 / 9	100 / 23	100 / 32	1 / 1	2.5 / 1	3 / 1
Mixed Viscosity @ 25°C, cps	20,000	3,600	3,200	8,000	6,900	2,190
Pot Life - 100 Grams @ 25°C	55 min.	80 min.	75 min.	80 min.	15-18 min.	50 min.
Cure Time & Temperature	24 hrs. @ 25°C	24 hrs. @ 25°C	24 hrs. @ 25°C	32-48 hrs. @ 25°C 3-4 hrs. @ 60°C	24-36 hrs. @ 25°C	74-96 hrs. @ 25°C 3-4 hrs. @ 60°C
<b>Typical Physical Properties - Cured System</b>						
Operating Temperature	130°C	130°C	130°C	105°C	130°C	130°C
Hardness, Shore D	88	85	88	80-85	80-85	80-85
Linear Shrinkage, %	0.70	1.20	1.10	0.06	0.21	0.07
Water Absorption, %, 7 Days @ 25°C	0.17	0.16	0.40			
Tensile Strength, PSI	7,000	6,600	7,600	1,325	4,880	5,200
<b>Typical Electrical Properties - Cured System</b>						
Dielectric Constant @ 1KHz, @ 25°C / 105°C	6.30 / 6.80	6.00 / 6.20	5.10 / 7.40	4.39 @ 25°C	4.18 @ 25°C	4.14 @ 25°C
Dissipation Factor @ 1KHz @ 25°C / 105°C	0.059 / 0.130	0.067 / 0.145	0.051 / 0.125	0.037 @ 25°C	0.024 @ 25°C	0.017 @ 25°C
Volume Resistivity, ohm-cm @ 25°C	2.0 x 10 <sup>15</sup>	3.0 x 10 <sup>14</sup>	1.0 x 10 <sup>15</sup>	7.1 x 10 <sup>13</sup>	4.6 x 10 <sup>11</sup>	6.9 x 10 <sup>14</sup>
@ 105°C	3.5 x 10 <sup>11</sup>	4.0 x 10 <sup>12</sup>	1.5 x 10 <sup>11</sup>			
Surface Resistivity, ohms - @ 25°C	5.0 x 10 <sup>15</sup>	9.0 x 10 <sup>14</sup>	3.0 x 10 <sup>15</sup>	4.7 x 10 <sup>15</sup>	2.2 x 10 <sup>15</sup>	2.0 x 10 <sup>15</sup>
@ 105°C	6.2 x 10 <sup>12</sup>	8.0 x 10 <sup>13</sup>	4.8 x 10 <sup>12</sup>			
Dielectric Strength, VPM	400	400	400	528	493	510

Low cost, low viscosity, low exotherm potting and casting system.

Low cost, low viscosity, low exotherm potting and casting - convenient mix ratio.

Filled version of RN-1200 with lower shrinkage, improved thermal properties.

## Description

CONACURE	CONAPOXY FR-1272™	CONAPOXY FR-1274™	CONAPOXY FR-1210		
	Part A / Part B	Part A / Part B	EA-02	EA-028	EA-87
<b>UL Recognition</b>	UL 94 V-O				
<b>Typical Handling Properties</b>					
Mix Ratio by Weight, Resin/Hardener	100 / 7	1 / 1	100 / 5.5	100 / 14	100 / 18
Mix Ratio by Volume, Resin/Hardener	100 / 15	1 / 1	100 / 9.3	100 / 23	100 / 31
Mixed Viscosity @ 25°C, cps	10,000	40,000	10,000	9,000	4,500
Pot Life - 100 Grams @ 25°C	150 min.	190 min.	30 min.	40 min.	60 min.
Cure Time & Temperature	24-48 hrs. @ 25°C 3-5 hrs. @ 60°C	24-48 hrs. @ 25°C 3-5 hrs. @ 60°C	24 hrs. @ 25°C 2 hrs. @ 60°C	24 hrs. @ 25°C 2 hrs. @ 60°C	24 hrs. @ 25°C 2 hrs. @ 60°C
<b>Typical Physical Properties - Cured System</b>					
Operating Temperature	130°C	130°C	130°C	130°C	130°C
Hardness, Shore D	88	80	85	80	90
Linear Shrinkage, %	0.0001	0.0010	0.60	0.90	0.40
Water Absorption, %, 7 days @ 25°C			0.20	0.12	0.40
Tensile Strength, PSI	1,900	5,500	8,000	6,500	8,050
<b>Typical Electrical Properties - Cured System</b>					
Dielectric Constant @ 1KHz, @ 25°C / 105°C	4.80 @ 25°C	4.25 @ 25°C	4.30 / 4.70	4.90 / 5.60	4.20 / 5.00
Dissipation Factor @ 1KHz - @ 25°C / 105°C	0.014 @ 25°C	0.022 @ 25°C	0.003 / 0.05	0.007 / 0.09	0.035 / 0.12
Volume Resistivity, ohm-cm @ 25°C / 105°C	6 x 10 <sup>14</sup> @ 25°C	8 x 10 <sup>14</sup> @ 25°C	3.0 x 10 <sup>14</sup>	3.0 x 10 <sup>13</sup>	4.2 x 10 <sup>15</sup>
			2.0 x 10 <sup>10</sup>	3.0 x 10 <sup>10</sup>	3.0 x 10 <sup>11</sup>
Surface Resistivity, ohms - @ 25°C	5 x 10 <sup>15</sup>	3 x 10 <sup>17</sup>	9.2 x 10 <sup>15</sup>	2.5 x 10 <sup>15</sup>	6.8 x 10 <sup>15</sup>
@ 105°C			6.8 x 10 <sup>12</sup>	5.0 x 10 <sup>12</sup>	7.5 x 10 <sup>12</sup>
Dielectric Strength, VPM	420	400	375	375	375