



## Epoxy Bond 552

### Technical Data Sheet

Epoxy Bond 552 is an epoxy novolac system designed to be used in applications where high temperatures and strong chemicals will be encountered. It offers a room temperature cure with a short cure schedule. It should be used where resistance to chemicals is a high priority. While it will cure at room temperature, faster cure schedules can be achieved by baking at low temperatures. Applications include tank linings and structural components.

#### LIQUID PROPERTIES

Mix ratio	weight	4:1
Hardener viscosity	cps	2,750,000
Epoxy viscosity	cps	410
Mixed viscosity	cps	11,200
Pot life @ 25°C 100 gm mass	min	20
Cure Schedule.24 hours @ room temp		

#### CURED STATE PROPERTIES

Heat deflection temperature	oF/oC	220/106
Tensile strength	psi	12,530
Tensile modulus	psi	479,400
Tensile elongation at break	%	5.0
Flexural strength	psi	21,143
Initial flexural modulus	psi	487,355
Thermal conductivity	w/m°C	0.22
Dialectic strength	v/ml	508
Dielectric constant	1 Khz	4.0
	100 Khz	3.7
	1 Mhz	3.5
	10 Mhz	3.4
Resistivity surface	ohm-cm 10 <sup>16</sup>	0.7
Resistivity volume	ohm-cm 10 <sup>16</sup>	4.7

#### CHEMICAL RESISTANCE

Expressed as weight gain in %, these samples were cured 100°C for two hours prior to testing.

	1 day	7 days	28 Days	90 Days	180 Days
Water	0.17	0.41	0.84	1.48	2.23
Sodium Hydroxide	0.19	0.33	0.70	1.21	1.85
5% Acetic acid	0.66	2.00	4.01	7.06	10.53
Xylene/Isopropyl alcohol 1:1	0.00	-0.03	-0.03	-0.02	0.07
Sulfuric acid (concentrated)	0.17	0.28	0.38	0.55	0.84
Methyl Ethyl Ketone	0.02	0.00	0.00	0.08	0.29
Methanol	0.31	0.85	1.88	3.59	5.73
Methylene chloride	1.14	7.19	24.6	41.7	40.76
Gasoline	0.04	0.06	0.08	0.14	0.34
Diesel Fuel	0.10	0.14	0.11	0.10	0.22