

Table 1: Results of mixing Hyrez 202 with phenolic resin and Phencat 382.

Sample	Epoxy resin		phenolic resin		results at room temperature	results after 4 hours at 80 °C
	Part A	Part B	Phenolic J2027L	Phencat 382		
1	80	0	0	20	liquid	cured
2	90	0	10	1	liquid	liquid
3	90	0	10	0	liquid	liquid
4	0	10	40	0	jelly	rubbery
5	64	16	20	0	jelly	cured
6	64	16	0	1,8	liquid	Solid but phase separation
7	0	10	38	2	liquid	rubbery

Table 2: Mechanical properties of composite 80/20 (Epoxy/Phenolic resin) cured by different catalysts

Catalysts	Peak Load (N)	Peak Flexural Stress (MPa)	Strain at peak (%)	Strain at break (%)	Deflection at peak (mm)	Deflection at break (mm)	Flexural modulus (MPa)	Storage modulus (MPa)	Tg
with 5% Phencat 382	104	64.88	3.21	3.21	5.65	5.65	2272	1487	94
with 5% <i>UH</i>	78	48.67	2.58	2.58	4.6	4.6	2090	1452	94
with 5% Phencat 15	80	50.62	3.36	3.35	6.05	6.05	1762	1372	91
with 10% Phencat 382	95	58.05	2.8	2.8	5.06	5.06	2263	1831	97
with 10% <i>UH</i>	82	48.77	4.47	4.46	7.87	7.88	1487	1281	87

Table 3: Curing states of composite 20/80 (Epoxy/Phenolic resin) cured by different catalysts

Catalyst	Phenolic	part A of Hyrez 202	way of curing	after oven (4hours at 80°C)
10 % Phencat 382	80	20	{ Phenolic + part A } + catalyst	cured
10% <i>UH</i>	80	20		jelly, phase separation
10 % Phencat 15	80	20		foam
NIL	80	20		rubbery

Table 4: Results of mixing Hyrez 202 with phenolic resin and Phencat 15.

Samples	Hyrez 202 (% w/w)	Phenolic with 6% Phencat 15 (% w/w)	Room temperature curing	Post-curing, 4h-80 °C
1	50	50	ok	ok
2	60	40	x	foam
3	70	30	x	foam
4	80	20	x	foam
5	100	0	ok	ok
6	40	60	ok	ok
7	30	70	too brittle	ok
8	20	80	x	bubbles
9	0	100	ok	bubbles