RESOLTECH

Blends of 1050 and 1600 systems

Rigid to flexible laminating epoxy resin

In order to obtain the mechanical properties needed, it is possible to blend the 1050 and 1600 epoxy systems. This technical note shows the mecanical properties of 9 blends.

Mixing method

1. **Mix the resin 1050 with its hardener, strictly respecting the mixing ratio as shown in the 1050 DataSheet.**
2. **Mix the resin 1600 with the hardener 1606, strictly respecting the mixing ratio as shown in the 1600 DataSheet.**
3. **Then, mix the two systems with any ratio.**

Mechanical properties

All the results shown above were obtained with :

- **1050 resin and 1055S hardener**
- **1600 resin and 1606 hardener**

The samples were post cured at 60°C for 16h.

Hardness shore D, according to ISO 868

1600 (%) weigtht	100	90	80	70	60	50	40	30	20	10	
1050 (%) weigtht		10	20	30	40	50	60	70	80	90	100
Hardness shore D	40	42	49	58	64	74	79	84	87	87	89

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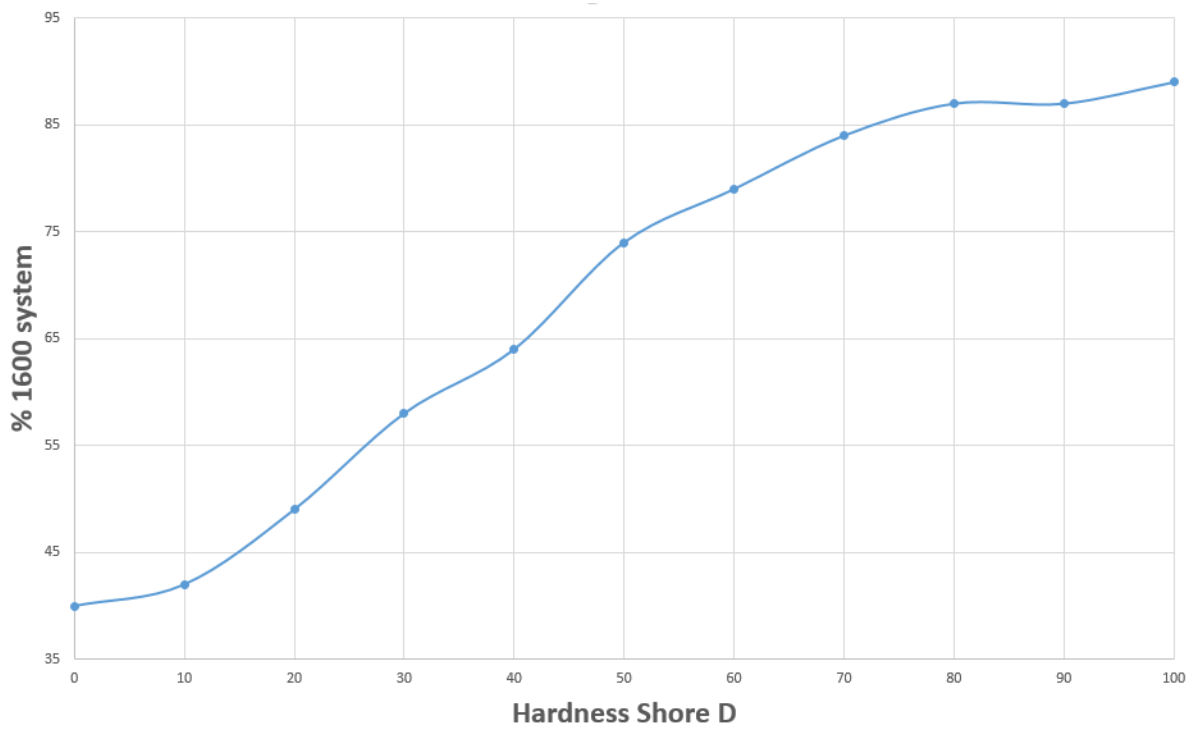

Tensile properties, according to ISO 527

All the results shown above were obtained with :

- 1050 resin and 1055S hardener
- 1600 resin and 1606 hardener

The samples were post cured at 60°C for 16h.

1600 (%)	100	90	80	70	60	50	40	30	20	10	
1050 (%)	0	10	20	30	40	50	60	70	80	90	100
Modulus (GPa)	0.0026	0.0125	0.073	0.15	0.42	0.885	1.5	1.92	2.34	2.61	3.45
Elongation (%)	72	80	67	55	37.5	18	11	5.1	4.5	4.5	4.5
R max (Mpa)	1.20	2.10	5.50	7.80	12.8	20.8	28.4	46.4	58.7	71.3	110

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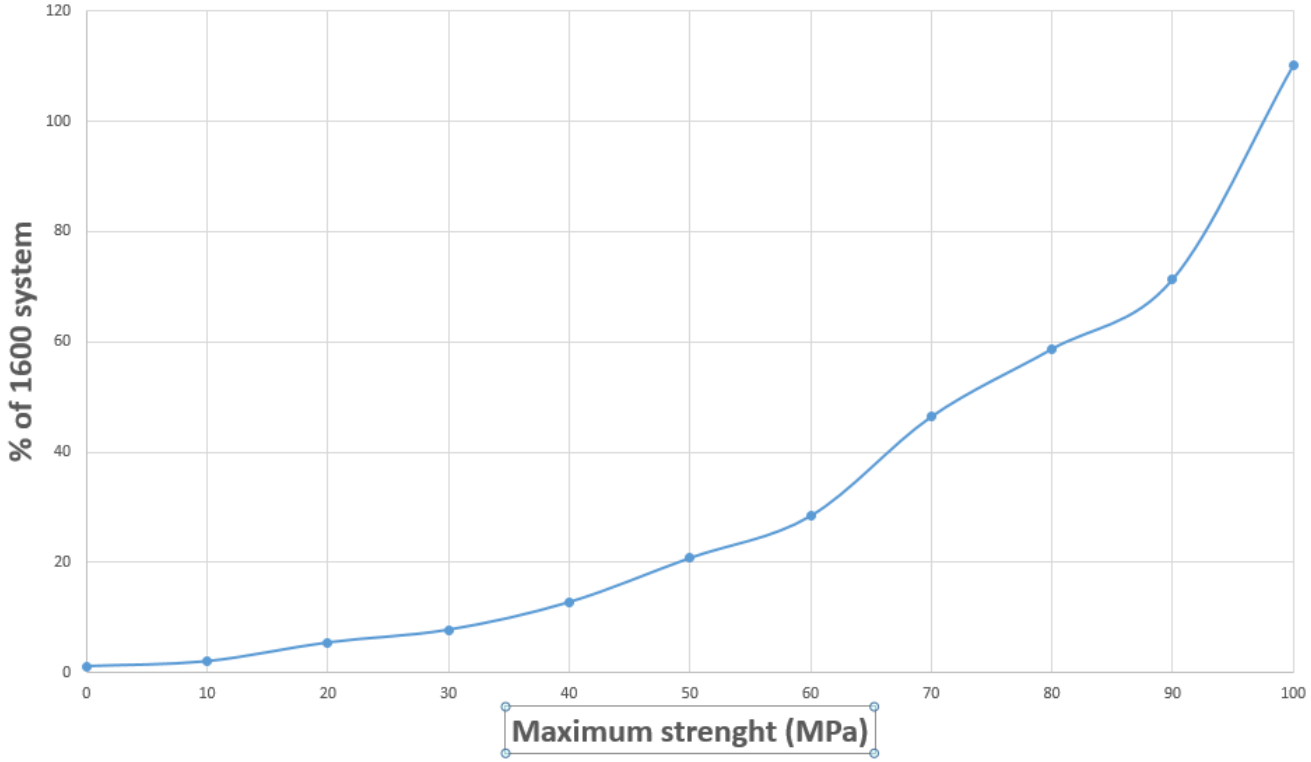

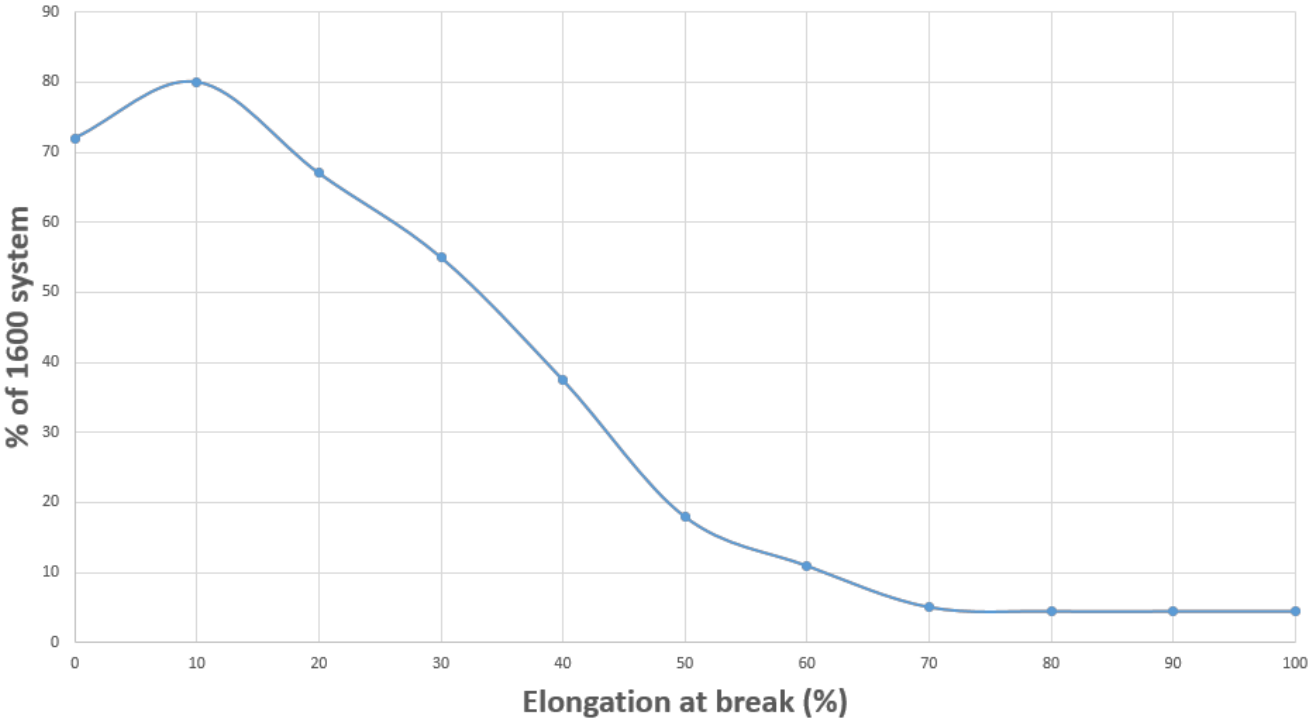

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