

Compset Universal epoxy composite engineering system



Compset Universal System is a high performance infusion AND hand laminating epoxy. The system functions with one universal epoxy resin with three curing agent options.

application
curing
engineering

Compset Universal System is a high performance **infusion AND hand laminating** epoxy. The system functions with one universal epoxy resin Epopol® B175, combining three curing agent options.

- **Epolink LH86** colored blue for **hand laminating**
- **Epolink RIH43** colored green for **Vacuum Infusion Process**
- **Epolink FH84** colored red for **fast curing** or **accelerating** process times of both laminating and infusion

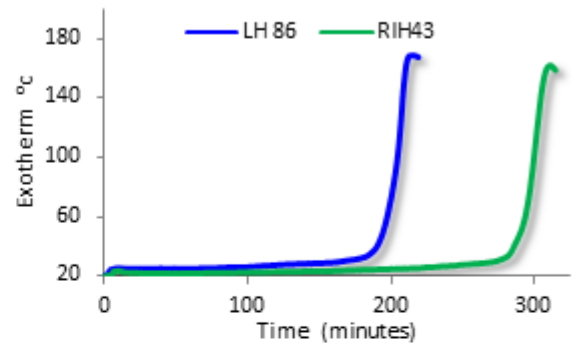
This enables one resin system to accomplish two complex work shop tasks in one. Color coding of the curing agents enables easy identification of which system to be used for particular moulding objects.

	Laminating LH 86	Infusion RIH 43	Fast Curing FH84
Mixing ratio (weight) w/w Resin : Hardener	100 : 25	100 : 25	100 : 25
Mixed Viscosity mPa.s 25°C	500	350	350
Worktime 25°C	70 minutes	90 minutes	15 minutes

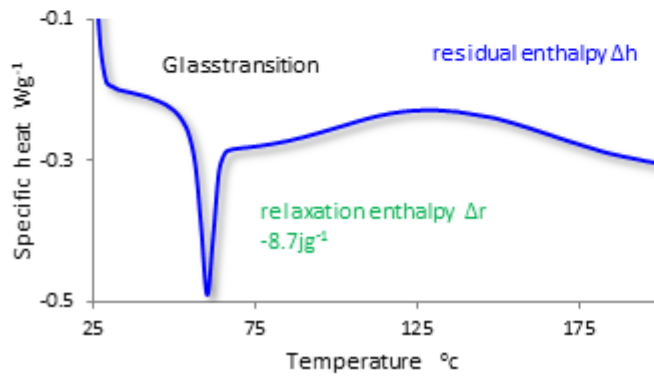


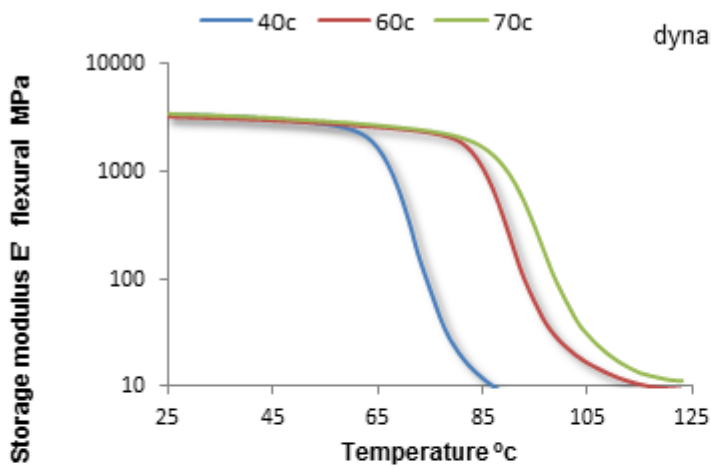
Post cure 16 hrs 40°C	Laminating LH 86	Infusion RIH 43
Tg first pass °c	57	59
Tg ultimate °c	77	87
Δr residual Jg ⁻¹	-6.7	-8.7
Δh residual Jg ⁻¹	23.7	31.6
Post cure 16 hrs 60°C	Laminating LH 86	Infusion RIH 43
Tg first pass °c	76	80
Tg ultimate °c	80	92
Δr residual Jg ⁻¹	-4.2	-6.9
Δh residual Jg ⁻¹	3.8	14.6

Pot life exotherm 1 kilo mix (water bath)



Significant changes in pot life occur with varying volumes and temperature. When difficult infusions are encountered smaller mixes may be required. Laminate design including fibre type and content, core size and thickness will significantly influence Pot Life.





dynamic flexural properties **laminating LH 86**

Flexural properties	40 ⁰ c	60 ⁰ c
E' storage modulus	3525 MPa	3385 MPa
E'' loss modulus	67 ⁰ c	85 ⁰ c
Tan α	86 ⁰ c	99 ⁰ c
Tans delta δ	79 ⁰ c	93 ⁰ c

Static mechanical properties

Post cure 16 hrs 60 ⁰ c	Laminating LH 86	Infusion RIH 43
Flexural Strength	115	120
modulus	2860	2690
Tensile Strength	59	74
Elongation	9.5	15.2

Post cure 16 hrs. 40 ⁰ c	Laminating LH 86	Infusion RIH 43
Flexural Strength	100	118
modulus	2825	2970
Tensile Strength	34	38
Elongation	7.5	9.2

