

## ER Gci Standard or Rapid Translucent Epoxy gel coat

In order to protect the laminate, a gel coat can be applied in a mould before laminating with an epoxy system. In this instance, after the application of a release agent, a thin layer of 500 - 800  $\mu$  ( 400 – 600 g m<sup>2</sup>) of gel coat should be applied with a brush.

As soon as gel coat passes the gel time, and whilst still tacky, a first layer of light fabric or chopped strand mat impregnated with epoxy should be laid onto the gel coat in order to achieve the best chemical bonding with the laminate.

Most problems that occur are in relation to moisture and temperature, or if the gel coat has been applied with a gun and a solvent added.

Because of this we recommend that users take care of three parameters when choosing this technology:

Moisture 65 % max / Temperature of products, mould and plant between 15 & 30° C / and maximum ventilation.

Caution : Coloured gel coat can not be produced by adding colours to the translucent product.

### ER GCI Translucent Gel Coat

		ER GCI "Standard"	ER GCI "Rapid"
Aspect		Purple gel	Purple gel
Viscosities ( m.Pas ) Rheometer CP 50 mm – Shear rate 10 s <sup>-1</sup>	@ 20 °C @ 25 °C	4 300 ± 860 3 000 ± 600	3 800 ± 750 2 200 ± 440
Density ( g/m <sup>3</sup> ) Picnometer NF EN ISO 2811-1	@ 20 °C	1,180 ± 0.005	1,177 ± 0.005
Refractive index	@ 25 °C	1,539 ± 0,002	1,538 ± 0,002

### ED GCI S Hardener

Aspect		Gel Clear
Viscosities ( m.Pas ) Rheometer CP 50 mm – Shear rate 10 s <sup>-1</sup>	@ 20 °C @ 25 °C	15 100 ± 3 020 11 300 ± 2 260
Density ( g/m <sup>3</sup> ) Picnometer NF EN ISO 2811-1	@ 20 °C	1,034 ± 0.005
Refractive index	@ 25 °C	1,510 ± 0,002

## Mixing Ratio By Weight

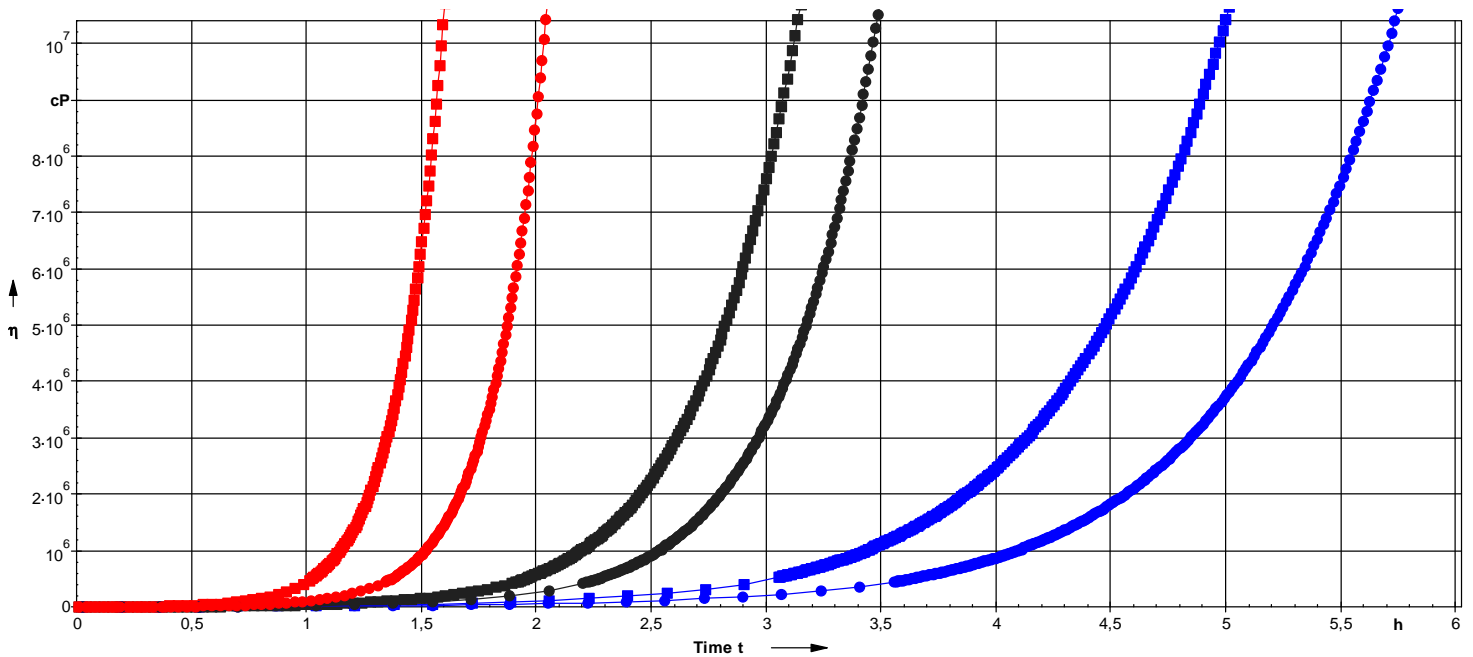
Resin ER Gci x	100
Hardener ED Gci S	48

It is very important to respect the following ratios between resin and hardener

## Blend Viscosity ER GCI X / ED GCI S

		ER GCI "Standard" / ED GCI S	ER GCI "Rapid" / ED GCI S
Viscosities ( mPa.s )	@ 20 °C	5800 ± 1160	3700 ± 740
Rheometer CP 50 mm	@ 30 °C	3600 ± 720	2150 ± 430
Shear rate 10 s-1	@ 40 °C	2600 ± 520	1300 ± 260

## Viscosity on 1 mm film @ 20, 30 And 40 °C



■ η Viscosity ER GCIR / ED GCIS @ 20 °C    
 ■ η Viscosity ER GCIR / ED GCIS @ 40 °C    
 ● η Viscosity ER GCIS / ED GCIS @ 30 °C  
■ η Viscosity ER GCIR / ED GCIS @ 30 °C    
 ● η Viscosity ER GCIS / ED GCIS @ 20 °C    
 ● η Viscosity ER GCIS / ED GCIS @ 40 °C

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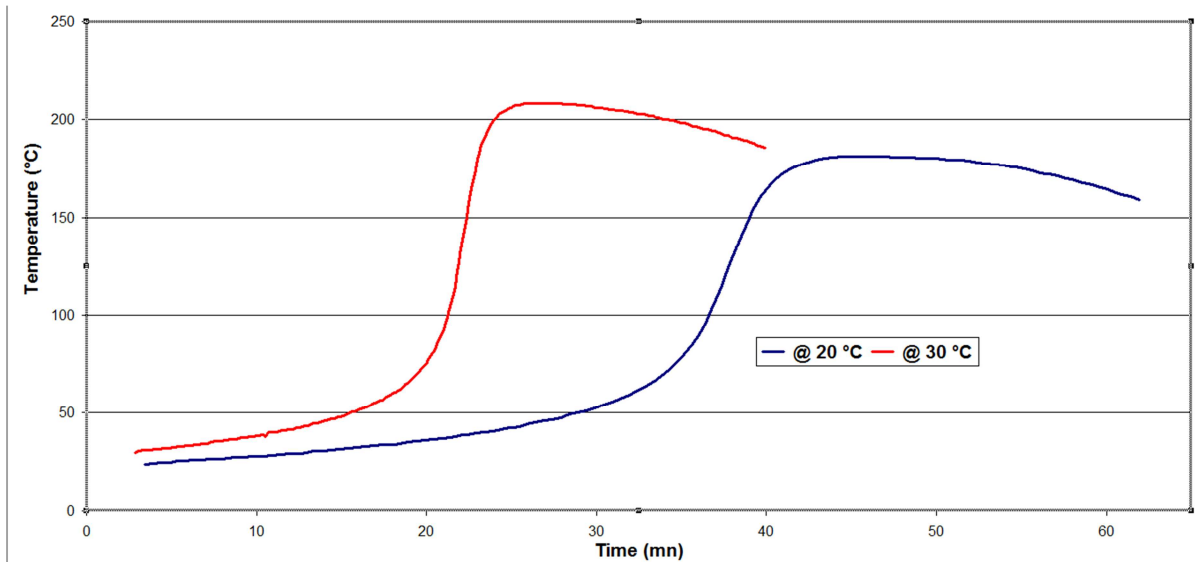
## Glass Transitions ER GCI X / ED GCIS mixes

	ER GCI "Standard" / ED GCI S	ER GCI "Rapid" / ED GCI S
Tg maximum / Onset (° C) DSC – ISO 11357-2	74	78

### Reactivities On 100 G Mix ER GCI X / ED GCI S

		ER GCI "Standard" / ED GCI S	ER GCI "Rapid" / ED GCI S
Exothermic temperature	@ 20 °C	180	215
	@ 30 °C	210	225
Time taken to achieve exotherm :	@ 20 °C	44'	24'
	@ 30 °C	25'	17'
Time taken to reach 50 °C :	@ 20 °C	28'	13'
	@ 30 °C	15'	7'

#### ER Gci Standard / ED Gci S On 100 Mix



#### ER GCI Rapid / ED GCI S on 100

