



RESOLCOAT 2060 GC ALU

Hardeners 2061S & 2066H

Tooling Aluminium Epoxy Gelcoat

- High gloss surface
- For demanding heat cycles postcures & thermoforming
- High modulus & mechanical properties
- TG 115°C



RESOLCOAT 2060 GC ALU epoxy gelcoat is formulated for the production of composites tooling. It enables to manufacture tooling that will resist many years to the most demanding heating and cooling post-curing cycles of: **heating RTM & pre-preg tooling, high output heat forming of thermoplastics or polymer concrete/solid surface injection tools.**

Its Novolac based formula guarantees the highest mechanical and chemical resistance, notably to styrene. Polyester or Vinylester parts manufactured on the 2060 GC ALU gelcoat will release with high gloss for numerous cycles. Should the gelcoat needed to be repaired, polishing the repaired area will enable to regain a high gloss surface aspect.

This new generation system, optimized with **excellent self levelling characteristics and excellent air release**, is suitable for the manufacture of large composite tooling. It should be applied by brush or airless.

The recommended application thickness ranges from 500 µm to 900 µm @ 25°C, which it is possible to achieve in one coat on a vertical surface without sag.

Final thermo-mechanical properties will be obtained after a post curing cycle defined according later in this technical data sheet.

Gelcoat 2060 GC ALU

Hardeners 2061S & 2066H

Tooling Epoxy Gelcoat

MIXING RATIO

Resin 2060 GC ALU	100 pbw
Hardener 2061S	13 pbw
Or	
Hardener 2066H	10 ppw



Warning: the mixing ratio must be accurately followed. It is not possible to change the ratio, it would result in lower mechanical properties. The mixture should be thoroughly stirred to ensure full homogeneity. It is important to note that epoxy systems tend to heat up much faster in a pot than as a thin film. It is preferable to only mix the necessary amount usable within the given pot life. Keeping the mixture in flat open containers reduces the risks of exothermic reaction.

APPLICATION

Thoroughly mix the resin component before pouring in mixing cup. It is recommended to mechanically mix the resin+hardener during 5 effective minutes to ensure effective mixing.

The standard procedure of working with epoxy gelcoats applies this system. The 2060 GC ALU system can be applied by brush, roller, or airless gelcoater.

2060 GC ALU has been formulated for application of 500 to 600 μm without sag on vertical surfaces in one only coat.

Coverage: 0,950 kg/m² for a 500 μm thickness dry film.

Over coating:

As an indication, at 23°C with the 2061S slow hardener it is possible to overcoat the gelcoat with a laminating resin within **2 hours** of it's application as long as the surface still has tack (exact timing to be defined by workshop temperature).

It is recommended to sand and degrease before laminating onto the gelcoat if the surface has cured and formed its film (tack-free surface).

Other application methods such as delaying the gel by applying a coat of ultra slow laminating epoxy resin (*1050+1053 or 1040-1043L Resoltech system is recommended for this use*) onto the freshly applied gelcoat **is a well proven method and ensures a good chemical bonding** with the reinforcement laminated within 24h of the 1050/1053 coat.

Lamination of the first layers of reinforcement may be done with the aluminium filled 2060 ALU 25 resin in order to improve mould print-through resistance and better thermal resistance of the mould surface.

In all cases testing in production conditions should be conducted in order to validate the method before industrial size applications.

It is recommended to have workshop temperature conditions between **18-25°C** in order to facilitate the mixing and the application. A lower temperature will increase the viscosity of the mix as well as it's pot life. On the contrary, a higher temperature will reduce the viscosity and the pot life of the mix. For more information, please refer to the applications technical bulletins (TechNotes), available on request.

Gelcoat 2060 GC ALU

Hardener 2061S & 2066H

PHYSICAL CHARACTERISTICS @ 23°C

Visual aspect

2060 GC ALU : Grey gel
2061S : Transparent yellow liquid (120 mPas).
Mix : Grey gel .

Density & Viscosity

REFERENCES	2060 GC ALU	2061S	2066H	Mix 2060GC Alu +2061S	Mix 2060GC Alu +2066H
DENSITIES	1,74	0,98	0.97	1,68	1,68
VISCOSITIES (mPa.s)	170 000	120	135	120 000	125 000

REACTIVITY @ 25°C

	2066H	2061S
Temps de gel sur 70g (4cm de hauteur)	40 min	4h40
Max temperature at exothermic peak on 70g (4cm high)	ND	28°C
Touch dry on 2 mm thickness	2h	5h

CURE & POST CURING

The 2060 GC ALU system will cure at room temperature enabling to release parts from the moulds at room temperature after 24h of its application, yet further post-cure of 2h at 80 °C+ 3h @ 120°C will enable the gelcoat to obtain 100% of it's mechanical characteristics and are recommended.

Touch dry on 500 µm : 6 h @ 25 °C
Hard & sandable : 16 h @ 25 °C
Releasable from mould: 24h at room temperature
Full cure : 7 days at room temperature or 2h at 80 °C+ 3h @ 120°C

MECHANICAL CHARACTERISTICS

Hardness: 87 Shore D
Elongation to break : 4%

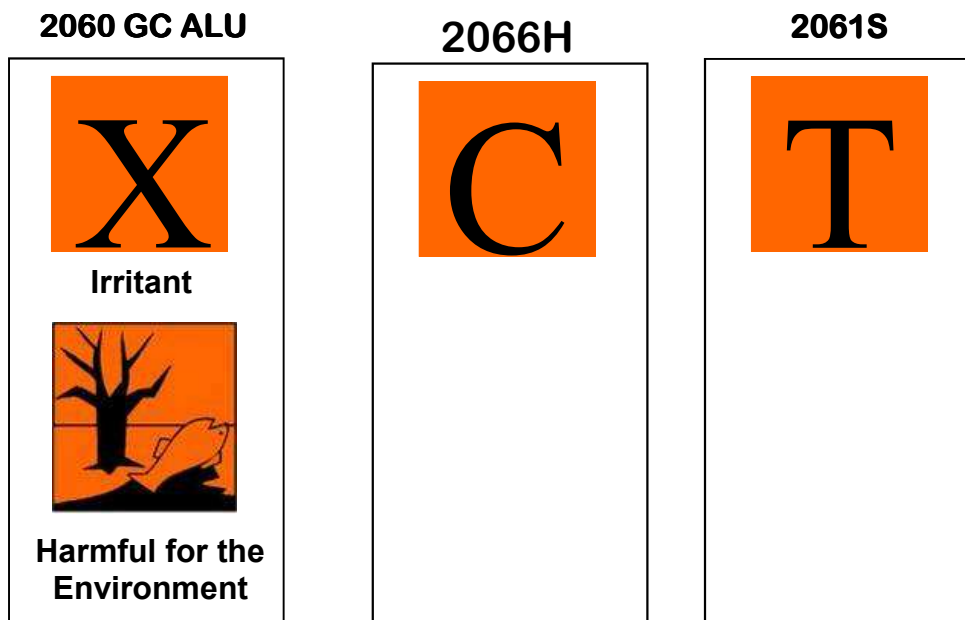
CURING CYCLE	TG _M (Kinotech)
24h @ 23°C	45°C
2h @ 80 °C+ 4h @ 120°C	115°C

page 3/4

Gelcoat 2060 GC ALU

Hardener 2061S & 2066H

LABELLING



PACKAGING

Slow version

- 1,13 kg kit: 1 kg of 2060 GC ALU + 0.13kg. of 2061S
- 5,65kg kit: 5 kg of 2060 GC ALU + 0,65 kg. of 2061S
- 28,25kg kit: 25 kg of 2060 GC ALU + 3,25kg. of 2061S

Fast Version

- 1,13 kg kit: 1 kg of 2060 GC ALU + 0.10kg. of 2066H
- 5,65kg kit: 5 kg of 2060 GC ALU + 0,5 kg. of 2066H
- 28,25kg kit: 25 kg of 2060 GC ALU + 2,5kg. of 2066H

TRANSPORT & STORAGE

Shelf life is one year in sealed containers as provided. Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area.

HEALTH & SAFETY

It is advised to follow basic rules such as avoiding skin contact, wear masks when producing dust. Please read our standard health and safety sheet for more information.

In case of eye contamination, wash with water and seek medical advice.

Nota The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply..



35, impasse Emeri • Pôle d'activités
13510 EGUILLES • FRANCE
Tél : +33 4 42 95 01 95 • Fax : +33 4 42 95 01 98
e-mail : export@resoltech.com • www.resoltech.com

Page 4/4