



TECHNICAL DATASHEET

Resin 1460 PREG/ AC 146

Mixing ratio 100 / 5 pbw

The **1460 PREG /AC146 system** is an epoxy system formulated for the production of high performance prepregs.

- Polymerization at high temperature (latent system) with accelerator.
- A very low viscosity
- Excellent wetting properties on glass, carbon and aramid reinforcements.
- High thermo mechanical properties notably in flexion
- Low toxicity.

PHYSICAL CHARACTERISTICS

| | 1460 PREG |
|--|---|
| Type Viscosity at 60°C * Density at 25°C * | Epoxy resin + latent hardener 1250 mPa.s 1,12 |

| | AC 146 |
|--|---|
| Type Aspect Viscosity at 25°C * Density at 25°C * | Amine - Accelerator Pale yellow liquid 40 mPa.s 1,05 |

RESOLTECH SARL

35, impasse Emeri • Pôle d'activités 13510 EGUILLES • FRANCE

Tel : +33 4 42 95 01 95 • Fax : +33 4 42 95 01 98

Contact : export@resoltech.com • www.resoltech.com



MIXED CHARACTERISTICS

| | 1460 PREG / AC 146 ¹⁾ |
|--|--|
| Mixing ratio | 100 pp resin + 5 pbw hardener |
| Viscosity at 60°C | 450 mPa.s |
| Reactivity at 80°C | 56 min to reach 2000 mPa.s 80 min to reach 4000 mPa.s |
| | System characteristics. Curing cycles : Pre-gelification : 3 min / 165°C + Post curing : 4 h / 140°C |
| Tg | 125°C |
| Hardness Shore D | 82 |
| Resistance to Traction (MPa) | 32 |
| Flexion Module (MPa) | 3200 |
| Maximum flexion resistance (MPa) | 90 |
| Resilience Charpy (KJ/m ²) | 12 |



resoltech
ADVANCED TECHNOLOGY RESINS

Application

- Place the 1460 PREG resin in a heat chamber at 50 - 60°C to kick start the reaction. Temperature of the resin should not exceed 60°C.
- Add the hardener/accelerator AC 146 and mix avoiding to incorporate air inclusion in the mix. Release entrapped air in a vacuum chamber if necessary.
- Fill the impregnation tank and calibrate in order to obtain the reinforcement/epoxy resin ratio desired.
- Keep a tight control on the mix temperature of the tank that must imperatively stay under 60°C
- Proceed to impregnation of the reinforcement.
- If parts are not manufactured immediately, place the prepreg in cold chamber (-18°C).
- Curing will be done in two stages:
 - Step n°1 : **pre/gelification**
Depends on the temperature, time of exposure to ambient temperature during the impregnation process and the pressure. It needs to be determined experimentally but as a guiding indication it is 3 minutes at 165°C.
 - Step n°2 : **Curing**
This is the critical stage that will determine the final performance of the prepreg. Again it depends of the exposure time and pressure. It needs to be determined experimentally but as an indication it is 4 hours at 140°C. Resoltech provides its prepreg resin customers with testing facilities at the resoltech plant in order to determine the final post-curing recommendation.

RECOMMANDATIONS

- It is necessary to respect the mixing ratio. Any changes in the mixing ratio will reduce the thermo mechanical properties of the system.
- Respect the storage recommendations of the resin and the prepreg. The resin has been modified with a latent hardener, so any temperature increase may trigger the reaction between the resin and hardener.
- It is essential to proceed with tests before any industrial size application.

STORING

Store the resin away from humidity in the original packaging sealed. –
Shelf life : 6 month between 0 and 5°C in sealed containers as provided.
Keep the hardener sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area.

HEALTH AND SAFETY

Although all Resoltech formulations are modern, 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.

RESOLTECH SARL

35, impasse Emeri • Pôle d'activités 13510 EGUILLES • FRANCE

Tel : +33 4 42 95 01 95 • Fax : +33 4 42 95 01 98

Contact : export@resoltech.com • www.resoltech.com