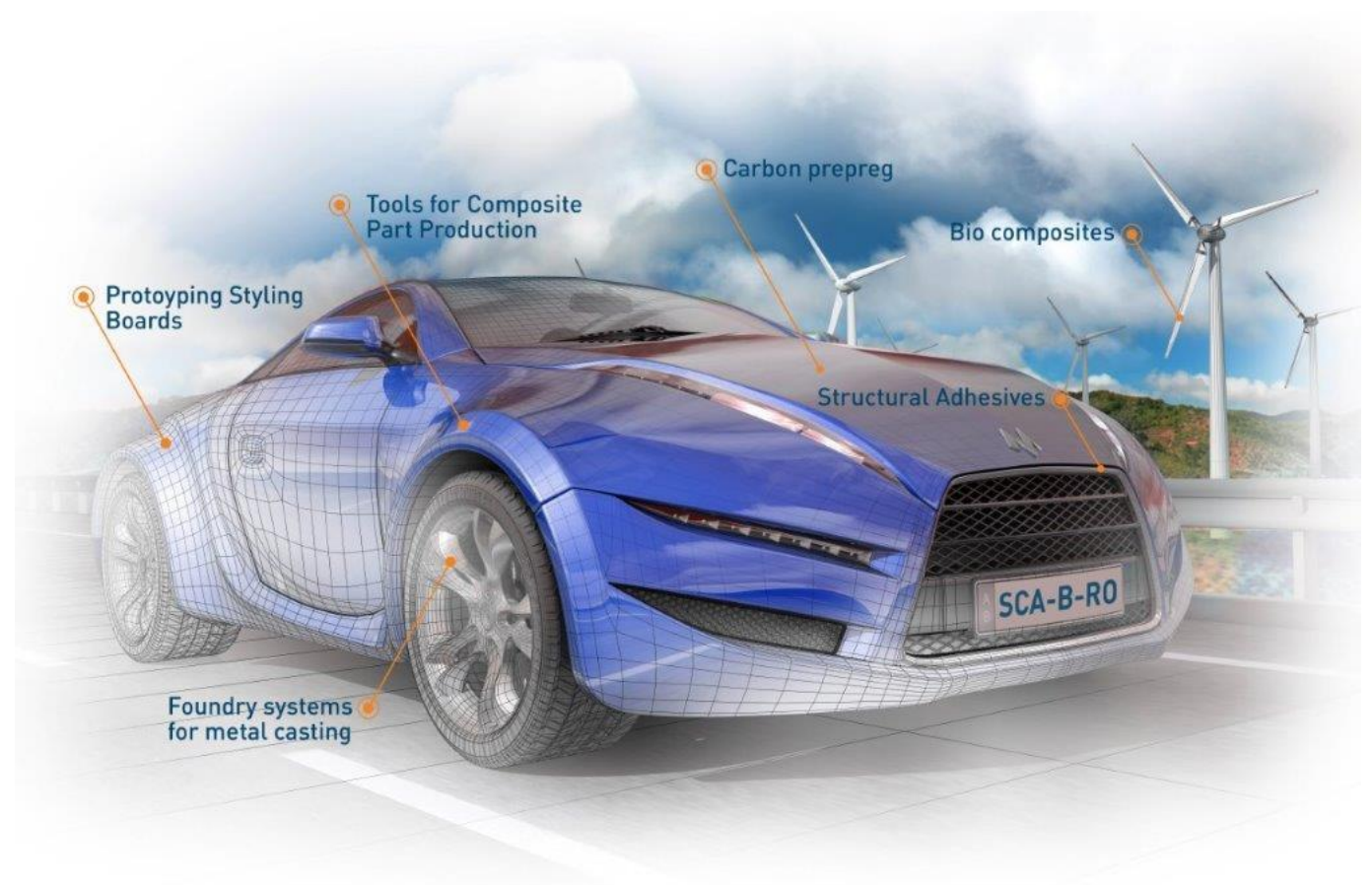


# TECHNICAL DATASHEET

RESOLTECH 2080 M17

2084M



MALLENBOUW | COMPOSITEN | LIJMEN



# RESOLTECH 2080 M17

## Hardener 2084M

### Structural Epoxy Foaming System

- Density 170 kg/m<sup>3</sup>
- Slow hardener for larger volumes to be foamed
- Excellent mechanical properties



RESOLTECH 2080 M17 / 2084M is a liquid foaming epoxy casting system formulated to produce low density, closed cell, structural cores.

RESOLCOAT 2080 M17 / 2084M has a (free) expansion coefficient of 6.2, enabling the production of **170 kg/m<sup>3</sup>** epoxy foam. The slow, controlled foaming reaction makes unnecessary the use of mixing machines like with PU foams – The low pressure of the foaming will enable direct casting in the final parts with no conforming moulds without alteration of the dimensions of the composite.

This system is available in neutral (white) colour or may be pigmented with any RESOLTECH RAL colour pigment paste.

The main advantages of this epoxy foaming system over existing systems are :

- No fragile stage after the foaming making it unnecessary to cure before releasing from mould or to post cure depending on the mechanical characteristics needed.
- Perfect compatibility with prepreps and epoxy resins even during their polymerization
- Excellent resistance to water
- Major improvement of thermal and mechanical resistances compared to existing epoxy foams
- No V.O.C emission

The 2084M hardener is less reactive than the standard 2085M hardener and enables larger volumes to be foamed. Maximum thicknesses are to be determined with tests depending on the room temperature and if the foam will be casted in a heat conductive material or not. Contact our technical services for advice.

# Resin 2080 M17

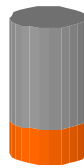
Hardener 2084M

## Structural Epoxy Foaming System

### MIXING RATIO

By weight

Resin 2080 M17                    100  
Hardener 2084M                    35



The mixing ratio must be respected neither excess nor default. The mixture should be homogeneous and intimate before use.

### APPLICATION

The resin 2080 M17 has to be re-homogenize before each use in order to ensure uniform cells sizes. It is recommended to cast the mixed resin and hardener at a temperature around 18 to 25°C in order to ease the mixing and casting process. Lower temperature will increase the viscosity of the mix while higher temperature will reduce the viscosity and the pot life. Allow 10% margin for losses during casting. **The foaming starts 5 minutes after mixing, it s recommended to cast the mixed resin+hardener within these 5 minutes .**

### PHYSICAL CHARACTERISTICS @ 23°C

#### Visual aspect

2080 M17 : White thixotropic liquid  
2084M : Transparent to slightly yellow liquid  
Mix : White flowable liquid

#### Densities

Average free expansion ratio : x6.2

	2080 M17	2084M	Mix prior to foaming	Mix after foaming
Density	1.10 ± 0.03	0.94 ± 0.03	1.06 ± 0.03	0.17 ± 0.03

#### Viscosity

	2080 M17	2084M	Mix prior to foaming
Brookfield Viscosity A5 V20 (mPa.s)	18 000 ± 3 000	76 ± 25	11 200 ± 1500

# Resin 2080 M17

## Hardener 2084M

---

### REACTIVITY @ 23°C

Time before foaming	5 min
Dry touch/overcoatable	10h
Hard & Releasable	24h

Due to its low reactivity 2084M hardener will take several hours to reach full expansion. Polymerization process is independent from foaming. Depending on temperature & volume to be cast, the hardening time can vary significantly. Tests have shown good adhesion between layers of foams casted onto each other without surface preparation.

### CURING & POST CURING

The foam obtained may be released from the mould after 24h at 23°C. Nevertheless, if higher thermo mechanical properties are required, a postcure cycle can be performed 8h at 60°C.

Like all epoxies, the reticulation process of the 2080 M17 / 2084M is exothermic. It is recommended to proceed to preliminary tests for very large applications.

It is recommended to cast the 2080 M17 at temperatures inferior to 40°C in order to minimize risks of internal tensions happening during the cross-linking.

# Resin 2080 M17

Hardener 2084M

## PACKAGING

Kits of 2080 M17 / 2084M :

- (1+0,35) kg
- (5+1,75) kg
- (25+8.75) kg
- (200+3x23.33) kg

## TRANSPORT & STORAGE

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

## HEALTH & SAFETY

The usual precautions for the use of epoxy resins must be respected. Our health and safety datasheets are available upon request. It is important to wear protective clothing and avoid skin contact with the products. In case of contact, wash thoroughly with soap and water. In case of eye contamination, wash thoroughly with warm water. Consult a specialist.

Nota : The data provided in this document are provided good-faith and are based on the test in laboratory and our practical experience and is believed to be accurate. Considering the application of our products gets away from our control, 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](mailto:export@resoltech.com) • website : [www.resoltech.com](http://www.resoltech.com)

Page 4/4