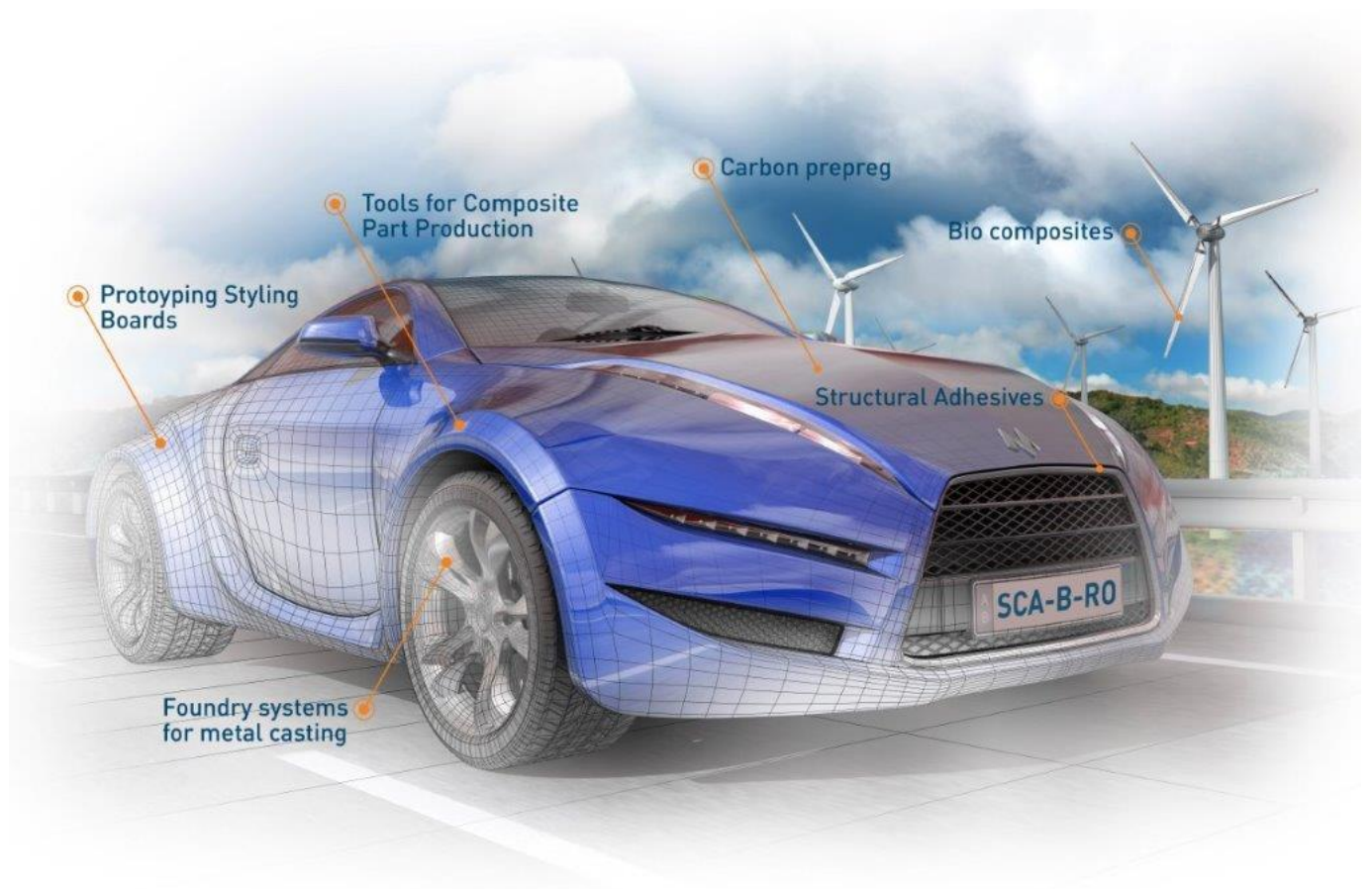


# TECHNICAL DATASHEET

RAKU-TOOL EC-2401

Epoxy



MALLENBOUW | COMPOSITEN | LIJMEN

# Epoxy Casting System

## Two component Epoxy

© RAMPF Tooling Solutions GmbH &amp; Co. KG

PC - Rev.-Status: 01- 2015/04/20

Page 1 of 2

### Key Properties

- Universally applicable
- Low sedimentation
- High temperature resistance after post-cure
- Easily workable
- Good reproduction of detail

### Applications

- Galvano bath models
- Foundry patterns
- Direct casting (negatives)
- Jigs and fixtures
- Working models for the ceramics industry

### Processing Properties

|                    |             |                   | EC-2401        | EH-2902-1   |
|--------------------|-------------|-------------------|----------------|-------------|
| Color              | visual      |                   | Beige          | Brownish    |
| Mix ratio          |             | Pb weight         | 100            | 20          |
| Density            | ISO 1183    | g/cm <sup>3</sup> | ca. 1.75       | ca. 0.96    |
| Viscosity at 25 °C | DIN 53019-1 | mPa·s             | 90,000-120,000 | 1,000-2,000 |

|                              |             |       | EC-2401 / EH-2902-1 |
|------------------------------|-------------|-------|---------------------|
| Mixed viscosity              | DIN 53019-1 | mPa·s | 40,000-60,000       |
| Pot life at 25 °C            | 1000 ml     | min   | 140-150             |
| Max. Layer thickness         |             | mm    | 40                  |
| Minimum curing time at 25 °C |             | h     | 18                  |

### Cured / Mechanical Properties

|                                  |           |                                  | EC-2401 / EH-2902-1                  |                   |
|----------------------------------|-----------|----------------------------------|--------------------------------------|-------------------|
|                                  |           |                                  | Cure: 7 days at RT<br>or 14h at 40°C | Cure: 14h at 70°C |
| Aspect                           | visual    |                                  | Beige                                | Beige             |
| Density                          | ISO 1183  | g/cm <sup>3</sup>                | ca. 1.6                              | ca. 1.6           |
| Shore hardness D                 | ISO 868   |                                  | 85-90                                | 85-90             |
| Coefficient of thermal expansion | ISO 11359 | 10 <sup>-6</sup> K <sup>-1</sup> | 50-55                                | 55-60             |
| Deflection temperature, HDT      | ISO 75    | °C                               | 50-55                                | 83-88             |
| Compressive strength             | ISO 604   | MPa                              | 100-105                              | 110-115           |
| Compressive modulus              | ISO 604   | MPa                              | 5400-5900                            | 5000-6000         |
| Flexural strength                | ISO 178   | MPa                              | 58-63                                | 75-80             |
| Flexural modulus                 | ISO 178   | MPa                              | 5200-5700                            | 5000-6000         |

## Processing

**The processing and material temperature should be between 20-25 °C.**

Mix the two components thoroughly in the ratio indicated. Degassing is recommended.

The mechanical properties and temperature resistance are only obtained through the post cure according to the recommended cure schedule.

## Recommended cure schedule

After initial curing at room temperature for 12-24 hours depending on the size and thickness of the parts, the parts must be heated up to 70°C in steps and post cured for 14 hours at 70°C, then cooled down gradually. The curing time at room temperature, heating and cooling rate depend on the size and thickness of the parts.

## Packaging

|                      |                    |
|----------------------|--------------------|
| RAKU-TOOL® EC-2401   | 6 x 1.4 kg / 10 kg |
| RAKU-TOOL® EH-2902-1 | 2.02 kg / 22 kg    |

## Storage

Original containers should be kept tightly sealed and stored at ambient temperatures (15°C to 30°C). If properly stored the products have the shelf-life indicated on the product label.

Partly used containers should always be sealed appropriately and used up as soon as possible.

## Handling Precautions

Good workplace ventilation is to be ensured during processing. At the same time, the employer's liability insurance association's industrial hygiene safety regulations regarding the handling of reaction resins and their hardeners are to be observed. Please take heed of the appropriate safety data sheets.