

**Advanced Materials****RenCast<sup>®</sup> CW 47 / Ren<sup>®</sup> HY 33**

CASTING RESIN  
ALUMINIUM FILLED EPOXY RESIN SYSTEM WITH OUTSTANDING HEAT  
RESISTANCE

**KEY  
PROPERTIES**

- Excellent heat resistance up to 210 °C after post-cure
- Layers of up to 100mm can be cast in a single operation
- Good machinability
- Long pot life and very easy to pour

**APPLICATIONS**

- Vacuum forming tools
- Injection moulds for thermoplastics
- Tools for manufacturing pre-preg components
- Foam tooling
- HTT applications

**PRODUCT DATA**

Property	Unit	RenCast <sup>®</sup> CW 47	Ren <sup>®</sup> HY 33
Appearance Colour	visual	Thick Liquid Grey	Liquid Amber
Viscosity at 25°C	mPas	100,000 - 500,000**	499 - 522**
Density	g/cm <sup>3</sup>	1.8 - 1.9**	1.0

*\*\* Specified data are on a regular basis analysed. Data which is described in this document as 'typical' is not analysed on a regular basis and is given for information purposes only. Data values are not guaranteed or warranted unless if specifically mentioned.*

**TYPICAL SYSTEM DATA****PROCESSING**

Mix ratio	Parts by weight
RenCast <sup>®</sup> CW 47	100
Ren <sup>®</sup> HY 33	15

Mix the two components thoroughly in the ratio indicated.  
If fine details are to be reproduced, a thin layer of mixed resin and hardener should be applied to the mould surface using a short bristle brush before casting.  
Evacuated material will improve properties. Post-curing will improve final properties.

**PROPERTIES**

Resin/Hardener mix:	Volume	Unit	RenCast <sup>®</sup> CW 47 Ren <sup>®</sup> HY 33
Appearance			Grey
Viscosity at 25°C		m Pa s	17,000
Pot life at 25°C	1000 ml	min	240
Max. Layer thickness		mm	100
Demoulding time		h	3-4 days RT/14 h 60°C

*After cure: 14h gradually up to 180°C*

Density	ISO 1183	g/cm <sup>3</sup>	1.66
Hardness	ISO 868	Shore D	90
Coefficient of thermal expansion	ISO 11359	10 <sup>-6</sup> k <sup>-1</sup>	50
Deflection temperature	ISO 75	°C	200-210
Compressive strength	ISO 604	MPa	150-160
Compressive modulus	ISO 604	MPa	7,500
Flexural strength	ISO 178	MPa	120
Linear shrinkage		mm/m	1
Abrasion resistance	Taber	mm <sup>3</sup> /100U	45-50

**STORAGE**

Provided that RenCast<sup>®</sup> CW 47 and Ren<sup>®</sup> HY 33 are stored in a dry place in their original, properly closed containers at the storage temperatures mentioned in the MSDS they will have the shelf lives indicated on the labels.  
Partly emptied containers should be closed immediately after use.

**WORKING  
CONDITIONS**

The product should be used when in the temperature range 18-25°C.

**PACKAGING**

System	RenCast <sup>®</sup> CW 47	Ren <sup>®</sup> HY 33
Quantity and Weight	1 x 25 kg	4 x 3.75 kg

**HANDLING  
PRECAUTIONS****Caution**

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

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