

**Advanced Materials****RenCast<sup>®</sup> CW 20 / Ren<sup>®</sup> HY 49**

CASTING RESIN  
MINERAL FILLED EPOXY CASTING OR FACE CASTING RESIN SYSTEM

<b>KEY PROPERTIES</b>	<ul style="list-style-type: none"> <li>• Outstanding mechanical strength</li> <li>• Good chemical resistance</li> <li>• Very hard, abrasion-resistant surface</li> </ul>
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<b>APPLICATIONS</b>	<ul style="list-style-type: none"> <li>• Foundry patterns and copy-milling models</li> <li>• Metalforming tools</li> <li>• Foaming and concrete casting moulds</li> <li>• Tools and tooling aids</li> </ul>
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**PRODUCT DATA**

Property	Unit	RenCast <sup>®</sup> CW 20	Ren <sup>®</sup> HY 49
Appearance Colour	visual	Thick liquid Blue	Liquid Transparent
Viscosity at 25°C	mPas	300'000 - 900'000**	0.0 - 10.0**
Density	g/cm <sup>3</sup>	1.9 - 2.2**	0.86 - 0.88**

*\*\* 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 20	100
Ren <sup>®</sup> HY 49	5

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	CW 20 HY 49
Appearance			Blue
Viscosity at 25°C		m Pa s	15,000
Pot life at 25°C	1000 ml	min	110
Max. Layer thickness		mm	30
Demoulding time		h	16

*After cure: 7 days at RT or 14 hours at 60 °C*

Density	ISO 1183	g/cm <sup>3</sup>	2
Hardness	ISO 868	Shore D	85-90
Coefficient of thermal expansion	ISO 11359	10 <sup>-6</sup> k <sup>-1</sup>	35
Deflection temperature	ISO 75	°C	65-70
Compressive strength	ISO 604	MPa	140
Compressive modulus	ISO 604	MPa	11,000-11,500
Flexural strength	ISO 178	MPa	110
Linear shrinkage		mm/m	0.05
Abrasion resistance	Taber	mm <sup>3</sup> /100U	22

**STORAGE**

Provided that RenCast® CW 20 and Ren® HY 49 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 CW 20	Ren HY 49
Quantity and Weight	2 x 5 kg	4 x 1 kg
Quantity and Weight	1 x 20 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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