

Advanced Materials**RenCast® CW 2215 / Ren® HY 5160-1 or HY 5161-1
or HY 5162-1**

CASTING RESIN
MINERAL FILLED EPOXY SYSTEM IN A RANGE OF REACTIVITIES

DATASHEET**KEY
PROPERTIES**

- Suitable for full or face castings
- Cures at room temperature
- Cure rate determined by choice of hardener
- Layers up to 80mm thick can be cast in a single operation
- Readily machinable when cured
- Mixes can be pigmented with colouring pastes DW 0131-DW 0137

APPLICATIONS

- Construction of foundry patterns
- Jigs and fixtures
- Copy-milling models
- Working models for the ceramics industry
- Suitable for a wide range of applications

PRODUCT DATA

Property	Unit	RenCast® CW 2215	Ren® HY 5160-1	Ren® HY 5161-1	Ren® HY 5162-1
Appearance Colour	visual	Paste Pale beige	Clear liquid Pale yellow	Clear liquid Pale yellow	Clear liquid Pale yellow
Viscosity at 25°C (ISO 2555)	mPas	110'000 - 190'000**	30 - 50	35 - 55	30 - 70
Density	g/cm ³	1.7	1.0	1.0	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® CW 2215	100	100	100
Ren® HY 5160-1	20	-	-
Ren® HY 5161-1	-	20	-
Ren® HY 5162-1	-	-	20

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 2215 HY 5160-1	CW 2215 HY 5161-1	CW 2215 HY 5162-1
Appearance			Yellow	Yellow	Yellow
Viscosity at 25°C		m Pa s	5000	5000	5000
Pot life at 25°C	1000 ml	min	120	45	25
Max. Layer thickness		mm	80	20	10
Demoulding time		h	16	12	10

After cure: 7 days at 25°C / 14 hours at 40°C

Density	ISO 1183	g/cm ³	1.6	1.6	1.6
Hardness	ISO 868	Shore D	85 - 90	85 - 90	85 - 90
Coefficient of thermal expansion	ISO 11359	10 ⁻⁶ k ⁻¹	45	45	45
Deflection temperature	ISO 75	°C	50 - 55	55 - 60	60 - 65
Compressive strength	ISO 604	MPa	80 - 90	80 - 90	80 - 90
Compressive modulus	ISO 604	MPa	6000 - 7000	6000 - 7000	6000 - 7000
Flexural strength	ISO 178	MPa	75 - 80	75 - 80	75 - 80
Linear shrinkage		mm/m	0.1	0.2	0.3
Abrasion resistance	Taber	mm ³ /100U	90 - 100	90 - 100	90 - 100

STORAGE

Provided that RenCast® CW 2215 and Ren® HY 5160-1 / HY 5161-1 / HY 5162-1 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 2215	Ren® HY 5160-1	Ren® HY 5161-1	Ren® HY 5162-1
Quantity and Weight	1 x 10 kg	1 x 20 kg	1 x 20 kg	1 x 20 kg
Quantity and Weight	6 x 750 gr	4 x 2 kg	4 x 2 kg	4 x 2 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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