

Advanced Materials**RenCast[®] CW 5156-1 / XB 5173**

CASTING RESIN
MULTIPURPOSE HARDENER BASED ON MODIFIED, CYCLOALIPHATIC AMINES
(NO AROMATIC AMINE CONTENT)

**KEY
PROPERTIES**

- Easy to work with / finish
- No offensive odours

APPLICATIONS

- Production of heat resistant moulds and tools
- Vacuum forming tools

PRODUCT DATA

Property	Unit	RenCast [®] CW 5156-1	XB 5173
Appearance Colour	visual	Liquid Grey	Clear liquid Pale yellow
Viscosity at 25°C	mPa s	75,000 - 135,000**	10 - 40**
Density	g/cm ³	1.74	0.92

** 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 5156-1	100
XB 5173	12

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® CW 5156-1 XB 5173
Appearance			Liquid Grey
Viscosity at 25°C		mPa s	8,000 – 12,000
Pot life at 25°C	1000 ml	min	150
Max. Layer thickness		mm	80-100
Demoulding time		h	24

After cure: Pre-cure parts for 48 hours at 25°C, or for 8 hours at 60°C before demoulding, which should be carried out at room temperature. Commence the post cure of the demoulded part at a temperature no higher than that of the pre-cure. Raise the temperature of the oven by no more than 10°C per hour, until the part has reached 120°C. For optimum heat resistance hold the part for 14 hours at 120°C.

Density	ISO 1183	g/cm ³	1.6-1.7
Hardness	ISO 868	Shore D	75-80
Coefficient of thermal expansion	ISO 11359	10 ⁻⁶ K ⁻¹	40-45
Deflection temperature	ISO 75	°C	130-135
Compressive strength	ISO 604	MPa	130-180
Compressive modulus	ISO 604	MPa	3000-3500
Flexural strength	ISO 178	MPa	85-90
Linear shrinkage		mm/m	0.19
Abrasion resistance	Taber	mg/100u	On test

STORAGE

Provided that RenCast® CW 5156-1 and XB 5173 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 5156-1	XB 5173
Quantity and Weight	12.5 kg	190 kg
Quantity and Weight	265 kg	4 x 4.5 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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