

## Board Material

### RenShape<sup>®</sup> BM 5055

### Epoxy board for pre-preg tools

#### Key properties

- Very fine surface structure
- Excellent machinability
- Good dimensional stability
- Heat resistant up to 140°C

#### Applications

- Lay up tools for pre-pregs
- Data control and cubing models
- Vacuum forming moulds

#### Product data

Product	Colour	Test method
RenShape BM 5055	Light green	visual

#### Properties

Density	ISO 1183	g/cm <sup>3</sup>	0.72 - 0.75
Hardness	ISO 868	Shore D	75
Coefficient of thermal expansion	ISO 11359	10 <sup>-6</sup> k <sup>-1</sup>	35 - 45
Deflection temperature	ISO 75	°C	135 - 140
Compressive strength	ISO 604	MPa	50 - 55
Compressive modulus	ISO 604	MPa	2300 - 2400
Flexural strength	ISO 178	MPa	30 - 40

## Bonding

System		RenGel® SW 18 Ren® HY 2404	RenGel SW 18 Ren HY 5159
Appearance	visual	Green	Green
Mix ratio	Parts by weight	100 : 20	100 : 16
Pot life at 25°C (0.5kg app.)	min	10 - 15	25
Clamping time	h	1	3
Cure schedule	4h at 80°C plus 4h at 120°C plus 4h at 140°C		

**Note:** Prepare the surfaces to be bonded with abrasive paper then clean to ensure the surfaces are oil and dust free. Apply the adhesive evenly to all surfaces that are to be bonded. Ramp up at no more than 10°C per hour and hold for the recommended time. Ramp down by no more than 10°C per hour following the cure schedule in reverse until the oven has reached 40°C, then switch off and do not open the oven for 10-12 hours until the tool has reached ambient.

## Repair

System		XD 4586 A/B
Appearance	visual	Green
Mix ratio	Parts by weight	100 : 19
Pot life at 25°C (0.1 kg)	min	20 - 30
Cure time at RT 20 mm layer thickness 1-2mm layer thickness		approx. 1 hour over night

**Note:** Recommended Release Agent: ACMOSAN 82-7007 (ACMOS CHEMIE)  
Recommended surface paint: EC85 Epoxy surface paint (Amber Composites) or Cyform Hard Paint (Cytec Fiberite). These materials can be obtained from the producers directly or through Vantico distributors.

## Milling

Milling parameter available on request.

## Storage

Board material may be stored flat in original cartons at 2° to 40° C in a dry area. Temperature variations should be avoided when transporting and storing board material.

## Working condition

The product should be used when in the temperature range 20° to 25° C.

## Packaging

Dimensions	Volume (l)	Weight (kg)	Number of Boards (per pack)	Number of Boards (per pallet)
1500 x 500 x 50	37.5	28	2	5
1500 x 500 x 100	75	56	1	5

## 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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