

## DESCRIPTION

Master models for the making of composite prepregs moulds or parts with or without autoclave, or vacuum forming moulds of plastic parts for low series.

## PROPERTIES

- High dimensional stability
- Easy machining
- Excellent surface aspect
- Medium density
- High temperature resistance

| PHYSICAL PROPERTIES                       |                 |       |
|---|-----------------|-------|
| Composition                               |                 | Epoxy |
| Colour                                    |                 | Green |
| Specific gravity of cured product at 23°C | ISO 2781 : 1996 | 0.70  |

| MECHANICAL PROPERTIES at 23°C                          |                  |                                  |          |    |
|--|------------------|----------------------------------|----------|----|
| Hardness   | - 23°C           | ISO 868 :2003                    | Shore D1 | 75 |
|  | - 80°C           |                                  |          | 73 |
|  | - 100°C          |                                  |          | 72 |
|  | - 120°C          |                                  |          | 71 |
|  | - 130°C          |                                  |          | 68 |
| Flexural modulus                                       | ISO 178 :2001    | MPa                              | 2300     |    |
| Flexural strength                                      | ISO 178 :2001    | MPa                              | 37       |    |
| Compressive strength at yield                          | ISO 604 :2002    | MPa                              | 50       |    |
| Glass transition temperature                           | ISO 11359 : 2002 | °C                               | 130      |    |
| Coefficient of thermal expansion (CTE) (10°C to 100°C) | ISO 11359 : 1999 | 10 <sup>-6</sup> K <sup>-1</sup> | 32 - 42  |    |

Following these results, LAB 975 NEW can be used up to 130 °C maximum temperature for curing prepregs in autoclave under 4 bars pressure.

## ASSEMBLY / FINISH

Sika Advanced Resins tooling board LAB 975 NEW should be bonded with matched adhesive system H 8973 (about 530g/m<sup>2</sup>)



## HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products :

- Ensure good ventilation,
- Wear gloves, safety glasses and waterproof clothes,
- Do not smoke when machining.

For further information, please consult the product safety data sheet.

| MACHINING PARAMETERS |                         |                                      |
|----------------------|-------------------------|--------------------------------------|
|                      | Cut speed (Vc in m/min) | Feed per tooth (fz in mm/revolution) |
| Rough shape          | 100 to 400              | 0.35                                 |
| Finish               | 400 to 800              | 0.05 à 0.15                          |

|  |                             |
|--|-----------------------------|
| $n = ( 1000 \times Vc ) / ( \pi \times Dc )$ | $Vf = n \times fz \times Z$ |
|--|-----------------------------|

- Vc: Cutting speed in m/min
- Dc: cutting diameter in mm
- n: Spindle speed
- fz: Feed per tooth in mm/revolution
- Z: number of teeth
- Vf: feed speed

## STORAGE CONDITIONS

The slabs must be stored in a dry place provided

## DIMENSIONS

- 1.500 x 500 x 50 mm
- 1.500 x 500 x 75 mm
- 1.500 x 500 x 100 mm
- 1.500 x 500 x 150 mm
- 1.500 x 500 x 200 mm

Other larger dimensions possible in Mass Casting MC 975 NEW (please contact us)

## GUARANTEE

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