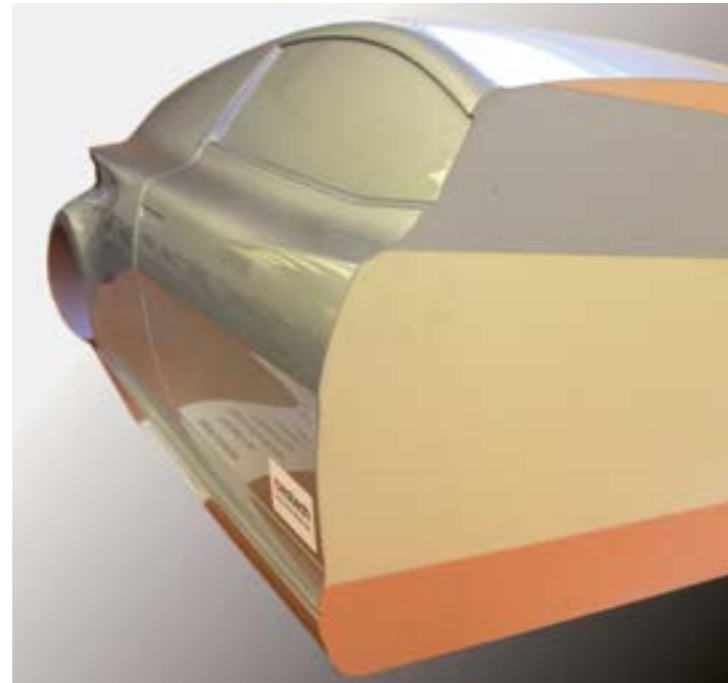
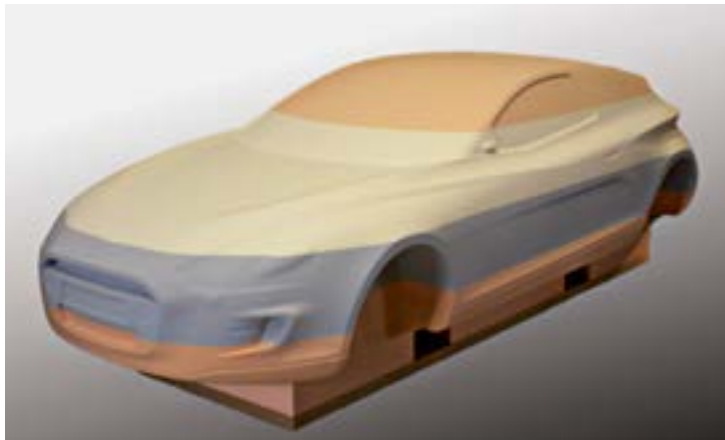


# DESIGN AND STYLING BOARDS

## DESIGN AND STYLING BOARDS

Light PUR foam boards are most favored materials that designers prefer to work with to create shaped forms or styling prototypes/models. These specially formulated boards are offered from 0.08 to 0.35 g/cm<sup>3</sup> density with optimum balanced mechanical and thermal properties. All boards feature excellent machinability by hand or CNC milling, producing mainly shavings and minimal dust while delivering a fine and non-powdery surface.



Automotive design model made of Labelite range. The combination of superior surface quality and the use of dedicated adhesive Labelite Glue enables an easy painting with lowest appearance of glue lines. Credit: Estech Design

# MODEL AND TOOLING BOARDS

## MODEL AND TOOLING BOARDS

Medium density brown boards are the ideal material for making master models or moulds for short series of parts. From 0.45 to 0.70 g/cm<sup>3</sup> we offer a complete range to satisfy every preference of model makers in mechanical strength, thermal resistance and of course surface aspect. Prolab boards display the smoothest surface aspect in such category in the market place while SikaBlocks<sup>®</sup> are thermally the most resistant and stable.



Full scale car model made of SikaBlock<sup>®</sup> M330 boards bonded with Biresin<sup>®</sup> Kleber Orange



High quality master models made of SikaBlock<sup>®</sup> M680/ M700 provides highest dimensional accuracy

Models milled out of Prolab 65/70 fulfil highest demands of surface quality

DESIGN AND STYLING BOARDS								
	SikaBlock <sup>®</sup> M80	Labelite 8 GY	SikaBlock <sup>®</sup> M150	Labelite 15 IY	SikaBlock <sup>®</sup> M330	Labelite 25YW	SikaBlock <sup>®</sup> M440	Labelite 35 OE
Density [g/cm <sup>3</sup> ]	0.08		0.15		0.24	0.25	0.35	0.35
Colour	yellowish	grey	light green	ivory	siena	peach yellow	apricot	orange
Characteristics	fine and non-powdery surface; easily workable; low dust formation when milled				excellent surface quality; very good milling behaviour; with low dust formation			
Physical data (approx. values)								
Shore hardness	-	A 28	-	A 65	D 25	D 25	D 38	D 35
Flex. strength [MPa]	1.1	1.0	2.2	2.2	5	5.4	9	9
Compressive strength [MPa]	0.8	0.7	1.6	1.6	4	3.8	8	7
Thermal resistance [°C]	130	115	80	80	60	75	60	70
CTE, α <sub>T</sub> [1/K]	60 x 10 <sup>-6</sup>	40 x 10 <sup>-6</sup>	65 x 10 <sup>-6</sup>	65 x 10 <sup>-6</sup>	65 x 10 <sup>-6</sup>	60 x 10 <sup>-6</sup>	65 x 10 <sup>-6</sup>	60 x 10 <sup>-6</sup>
Processing data (approx. values)								
Dimensions other dimensions on request [mm]	2000 x 1000 x thickness: 100/200/300/400/450 2400 x 1300 x thickness: 100/200/400	2000 x 1000 x thickness: 100/200	2000 x 1000 x thickness: 100/150/200/250/300/350/400	2000 x 1000 x thickness: 100/150/200	1500 x 500 x thickness: 50/100/200	1500 x 500 x thickness: 50/100/200	1500 x 500 x thickness: 50/75/100/150/200	1500 x 500 x thickness: 50/100/150/200
Adhesive	Biresin <sup>®</sup> Foam Adhesive / Labelite Glue				Biresin <sup>®</sup> Foam Adhesive / Labelite Glue / Biresin <sup>®</sup> Kleber Orange			
Filler	Biresin <sup>®</sup> Spachtel orange							

MODEL AND TOOLING BOARDS						
	SikaBlock <sup>®</sup> M450	Labelite 45 PK	SikaBlock <sup>®</sup> M600	Prolab 65 (XL)	SikaBlock <sup>®</sup> M680	SikaBlock <sup>®</sup> M700
Density [g/cm <sup>3</sup> ]	0.45		0.60	0.65 (0.73)	0.68	0.70
Colour	orange	pink	light brown	brown	light brown	light brown
Characteristics	good economical grade	superior surface quality; good edge stability	easily workable; fine, dense surface; good compressive strength and edge stability; good heat distortion temperature;			
Physical data (approx. values)						
Shore hardness	D 45		D 58	D 63 (D 70)	D 63	D 66
Flex. strength [MPa]	12		19	34	23	26
Compressive strength [MPa]	10		17	28	21	25
Thermal resistance [°C]	78	65	80	85	80	90
CTE, α <sub>T</sub> [1/K]	55 x 10 <sup>-6</sup>		55 x 10 <sup>-6</sup>	75 x 10 <sup>-6</sup>	55 x 10 <sup>-6</sup>	55 x 10 <sup>-6</sup>
Processing data (approx. values)						
Dimensions [mm]	1500 x 500 x thickness: 50/75/100/150/200 2000 x 1000 x thickness: 50/100/150/200	1500 x 500 x thickness: 50/75/100/150	1500 x 500 x thickness: 30/50/75/100/150/200	1500 x 500 x thickness: 30/50/75/100 (XL):150/200	1500 x 500 x thickness: 30/50/75/100/150/200	1500 x 500 x thickness: 30/50/75/100/150
Adhesive	Biresin <sup>®</sup> Kleber orange	Labelite Glue / Biresin <sup>®</sup> Kleber orange	Biresin <sup>®</sup> Kleber braun / Prolab Glue			
Filler	Biresin <sup>®</sup> Spachtel orange			Biresin <sup>®</sup> Spachtel braun Neu		

# TOOLING BOARDS

## TOOLING BOARDS

For composites tooling we offer epoxy boards with very compact surface aspect, high dimensional stability under heat and pressure to produce prepreg moulds or parts in autoclave and up to 130 °C.

We offer medium to high density PUR tooling boards from 0.78 to 1.7g/m<sup>3</sup> with high mechanical strength and sufficient heat resistance up to 100 °C combined with high dimensional stability.

Their performance package makes them suitable for applications such as checking fixtures, gauges, vacuum forming tools, low pressure RIM-moulds as well as metal sheet stamping tools.



Gauge with high dimensional accuracy milled out of Prolab 75



High durability with SikaBlock® M980 for foundry core boxes even in complicated shapes

SikaBlock® M945 provides excellent milling behaviour with low dust formation

## FOUNDRY TOOLING BOARDS

Sika Advanced Resins offers a wide range of tooling boards specially dedicated to make foundry patterns and cold core boxes.

Model-makers can select the most suitable board for their requirement in durability: abrasion resistance level from low to higher series of sand mouldings to be made as well as strength and dimensional stability.

These boards are cost effective alternative solutions to metallic patterns and cold core boxes for most foundry processes up to medium size series.



## BOARDS FOR HIGHEST DIMENSIONAL STABILITY

	LAB 975 NEW	LAB 973	Prolab 75	SikaBlock® M1000	LAB 1000
Density [g/cm <sup>3</sup> ]	0.70	0.75	0.78	1.0	1.67
Colour	light green	blue	light grey	white	grey
Characteristics	new low density epoxy board with high dimensional stability under pressure and heat up to 130C; excellent performance/price ratio	low density epoxy board with high dimensional stability under pressure and heat up to 125C; superior machinability and surface aspect	medium density, good compressive strength and edge stability; low thermal expansion and high dimensional stability	heavy-duty high density tooling board	
<b>Physical data (approx. values)</b>					
Shore hardness	D 75 (D 68 @ 130 °C)	D 73 (D 63 @ 130 °C)	D 73	D 75	D 89
Flex. strength [MPa]	37	30	43	48	100
Compressive strength [MPa]	50	50	54	47	110
Thermal resistance [°C]	130	125	85	85	100
CTE, α <sub>T</sub> [1/K]	35-42 x 10 <sup>-6</sup>	35-45 x 10 <sup>-6</sup>	50 x 10 <sup>-6</sup>	55 x 10 <sup>-6</sup>	45 x 10 <sup>-6</sup>
<b>Processing data (approx. values)</b>					
Dimensions [mm] other dimensions on request	1500 x 500 x thickness: 50/75/100/150/200	1500 x 500 x thickness: 50/75/100/150/200	1500 x 500 x thickness: 50/75/100	1500 x 500 x thickness: 50/75/100	830 x 500 x thickness: 50/75/100
Adhesive	H 8973 / H8973		Prolab Glue / Biresin® Kleber Braun	H9930 / Biresin® Power Adhesive Thix	

## BOARDS FOR TOOLS AND FOUNDRY

	SikaBlock® M930	SikaBlock® M945	SikaBlock® M960	LAB 920	LAB 850	SikaBlock® M980	SikaBlock® M990
Density [g/cm <sup>3</sup> ]	1.0	1.35	1.2	1.30	1.18	1.35	1.2
Colour	mint green	green	blue	green	dark blue	blue	orange
Characteristics	high dimensional stability, very easy to mill and smooth surface aspect	good abrasion resistance, easy to mill, high strength	good abrasion resistance, easy to mill, good impact resistance	high abrasion resistance, easy to mill, very high strength	high abrasion resistance, excellent milling behavior, very high strength	excellent combination between good abrasion resistance and dimensional stability; very high strength	high abrasion resistance, excellent milling behavior, very high strength
<b>Physical data (approx. values)</b>							
Shore hardness	D 78	D 83	D 78	D 85	D 80	D 86	D 80
Flex. strength [MPa]	52	100	80	75	57	145	60
Compressive strength [MPa]	50	95	70	68	41	120	56
Impact resistance	12	25	30	30	72	35	without break
Thermal resistance [°C]	90	80	80	90	80	85	80
CTE, α <sub>T</sub> [1/K]	55 x 10 <sup>-6</sup>	65 x 10 <sup>-6</sup>	85 x 10 <sup>-6</sup>	85 x 10 <sup>-6</sup>	95 x 10 <sup>-6</sup>	60 x 10 <sup>-6</sup>	105 x 10 <sup>-6</sup>
Abrasion resistance	+	++	++	++	+++	++	+++
<b>Processing data (approx. values)</b>							
Dimensions [mm] other dimensions on request	1500 x 500 x thickness: 50/75/100	1000 x 500 x thickness: 30/50/75/100	1000 x 500 x thickness: 30/50/75/100	1000 x 500 x thickness: 27/50/75/100	1000 x 500 x thickness: 50/75/100	1000 x 495 x thickness: 30/50/75/100	1000 x 495 x thickness: 30/50/75/100
Adhesive	Biresin® Kleber grün / Biresin® Power Adhesive Thix		Biresin® Kleber blau / Biresin® Power Adhesive Thix	H9930 / Biresin® Power Adhesive Thix		Biresin® Kleber blau / Biresin® Power Adhesive Thix	UR3490 / Biresin® Power Adhesive Thix