



BUILDING TRUST



PROLAB 65

Technical Data Sheet

POLYURETHANE MODELING BOARD

Masters - Patterns - Mock-Ups - Prototypes
 DENSITY 42 lbs/ft³ (0.65g/cc), HARDNESS 63 SHORE D

DESCRIPTION

Machinable board designed for production of patterns, mock-ups, prototypes and masters by milling or machining by hand.

PROPERTIES

- Non-porous material
- Excellent surface aspect (direct paint after sanding)
- Very good dimensional stability
- Machining by hand or by machine with wood cutting tools or aluminum cutting tools

PHYSICAL PROPERTIES

	Test Method	Units	Test Value
Color			brown
Density at 23°C	ISO 2781 : 1996	lbs/ft ³ (g/cc)	42 (0.65)

MECHANICAL PROPERTIES at 23°C

	Test Method	Units	Test Value
Hardness	ISO 868 :2003	Shore D1	63
Tensile strength	ASTM D-638	psi (MPa)	2,400 (17)
Tensile modulus	ASTM D-638	psi (MPa)	89,000 (614)
Elongation	ASTM D-638	%	7
Flexural strength	ISO 178 :2001	psi (MPa)	4,900 (34)
Flexural modulus	ISO 178 :2001	psi (MPa)	145,000 (1,000)
Compressive strength	ISO 604 :2002	psi (MPa)	4,100 (28)
Impact strength (CHARPY)	ISO 179/1eU :1994	ft.Lbf/in ² (kJ/m ²)	5 (11)
Glass temperature transition (Tg)	ISO 11359 : 2002	°F (°C)	185 (85)
Coefficient of thermal expansion (CTE) from 50 – 140°F (10 - 60°C)	ISO 11359 : 1999	10 ⁻⁶ .°F ⁻¹ (°C)	42 (75)

ASSEMBLY / FINISH

Ambient Use Adhesive System – TCC-230 Epoxy Adhesive with TCC-102 or TCC-104 Hardeners
Patch Paste – P-34 Model Plank Filler with White Cream Hardener



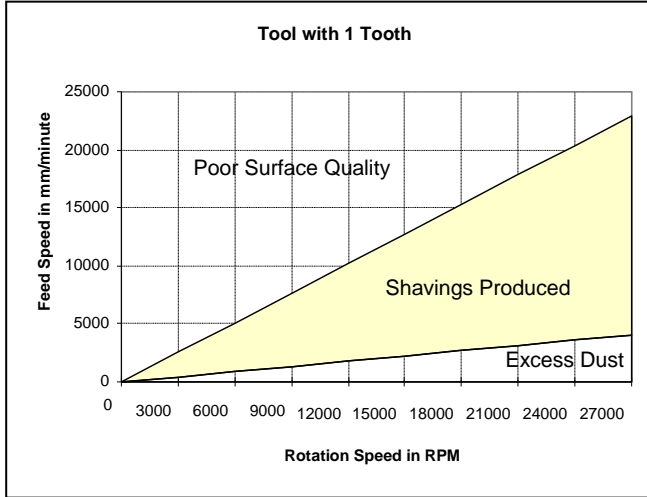
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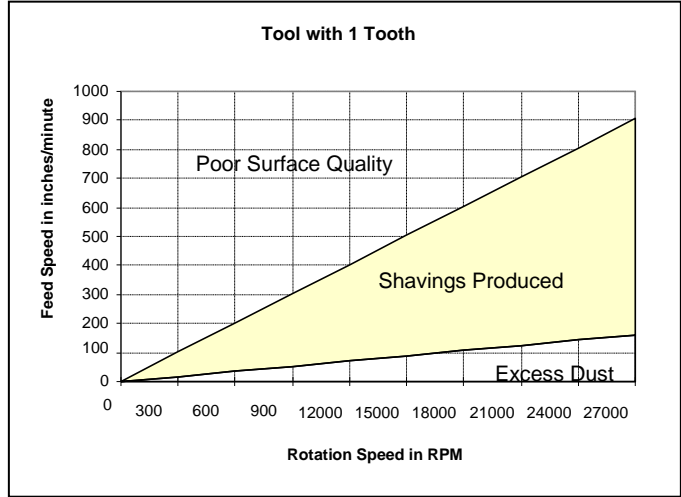
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Machining Recommendations



Metric Machining Envelope



English Machining Envelope

Machining Parameters

	Cutter edge velocity (Vc in ft/min (m/min))	Feed per tooth (fz in inches (mm)/revolution)
Rough shape	328 -1640 (100 to 500)	0.006 – 0.028 (0.15 to 0.70)
Finish	1312 – 2625 (400 to 800)	0.003 – 0.004 (0.07 to 0.10)

$n = (12 \text{ English or } 1000 \text{ metric}) \times Vc / (\pi \times Dc)$	$Vf = n \times fz \times Z$
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- Vc: Cutter edge velocity in ft/min (m/minute)
- Dc: Cutting diameter in inches (mm)
- n: Spindle speed in revolution/minute
- fz: Feed per tooth in inches (mm)/revolution
- Z: Number of teeth
- Vf: Feed speed in inches (mm)/minute

STORAGE CONDITIONS

Store flat in a dry place. Allow time for material to come to ambient temperature prior to bonding or machining.

HANDLING PRECAUTIONS

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

- Ensure good ventilation to prevent dust or chip accumulation
- Wear gloves, and safety glasses.
- Do not smoke when machining.

For additional information, please consult the Safety Data Sheet (SDS).

DISCLAIMER

The information contained in this technical data sheet results from research and tests conducted in our laboratories under precise conditions. Seller cannot anticipate all conditions under which seller's products, or the products of other manufacturers in combination with seller's products, may be used. It is the responsibility of the user to determine the suitability of the SikaAxson's products, under their own conditions, before commencing with the proposed application. In no event shall SikaAxson US be liable for any direct, indirect, punitive, incidental, special, and/or consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of our products.

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