

MODEL AND MOULD MAKING PASTES

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Large size models and tools are made with extrudable PUR and epoxy pastes providing a workable surface applied onto a stable core substructure. This technique is widely used to make plugs for boats or wind blades as well as automotive or architectural designs. This technology is beneficial versus boards as offering lighter models with a smooth and seamless surface (joint-free unlike boards). The PUR base allows for standard performance the fast-making of models without any post-curing. The epoxy range provides higher dimensional stability and heat resistance for models or direct tooling applications in composite parts making.



Biresin® M72 paste can be milled easily with low dust formation

SC175 thixotropy enables vertical application in single layer and without sagging

43 m long boat hull made of SC175 with a perfectly smooth and seamless surface

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Component	A	Biresin® M72	SC 155	SC 175	SC 180	SC 380	SC 390	SC 258
Component	B	M70	SC 155	SC 175	SC 180	SC 380	SC 390	SC 258
Mixing ratio [g]	A	100	100	100	100	100	100	100
	B	45	100	100	100	100	100	100
Colour		brown	brown	light grey	brown	grey	grey	light brown
Characteristics		PUR paste, fast curing, easily workable, fine, dense surface, easy to varnish	epoxy paste, low density and hardness with short time before machining for epoxy; good thermal resistance	epoxy paste, very good surface aspect, good behaviour on vertical support up to 30 mm, high thermal resistance	medium density epoxy paste and hardness with short time before machining for epoxy; good thermal resistance	multi-purpose epoxy paste with good strength and heat resistance for high quality models and moulds	medium density epoxy paste with high strength and heat resistance ideal for direct tooling	manual epoxy paste (hand or planetary mixer) applicable until 40mm; quick hardening in thin coat and good adhesion on various supports (wood, PS/PUR foams, boards and on itself)
Processing data (approx. values)								
Viscosity [mPas]	A	15,000	750	800	700	600	800	-
	B	175	900	800	600	700	800	
Mixture		pasty	600	800	800	600	800	light paste
Potlife [min]		10 - 15 (after machine application)	-	-	-	-	-	60
Workable after [h]		8	16 - 18	24 - 48	16 - 18	24	12 - 16	12 - 18
Physical Data (approx. values)								
Density [g/cm³]		0.9	0.55	0.63	0.80	0.82	1.06	0.60
Shore hardness		D 65	D 51	D 53	D 58	D 67	D 75	D 60
Flexural strength [MPa]		20	10	13	17	24	36	15
Compressive strength [MPa]		-	7	13	20	23	36	23
Thermal resistance [°C]		47	65	83	84	83	91	51
CTE, α_T [1/K]		-	88	70	80	60	58	48
Putty filler		Spachtel braun Neu		M175/M10	M180/M10	M380/M10	M390/M10	Spachtel braun Neu