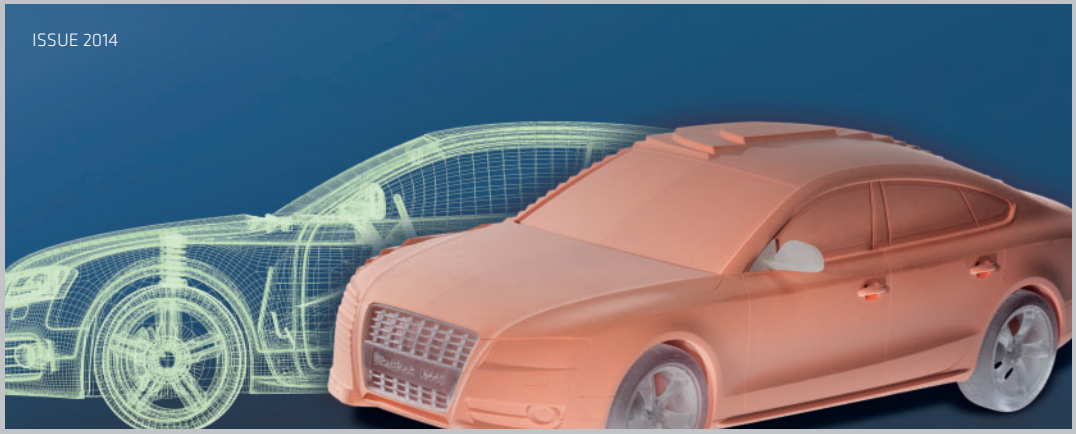
ISSUE 2014



TOOLING & COMPOSITES

SikaBlock® OVERVIEW AND MILLING PARAMETERS

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BUILDING TRUST

SikaBlock® MODEL BOARDS

SikaBlock®	M80	M150	M330	M440	M450	M600	M680	M700
Density [g/cm³]	0.08	0.15	0.24	0.35	0.45	0.60	0.68	0.70
Colour	yellowish	light green	siena	apricot	orange	light brown	light brown	light brown
Characteristics	fine, dense surface; easily workable; low dust formation when milled		excellent surface quality; very good milling behaviour with low dust formation		good surface quality; good edge stability	easily workable; fine, dense surface; good compressive strength and edge stability; high heat distortion temperature resistance		
Applications	styling models; design studies and test milling; substructure for design, styling and clay models		design and styling models; substructure for cubing and DCM; simple laminating moulds			master models, cubings, DCM; moulds and tools for lower number of pieces (low pressure RIM, vacuum forming, etc.)		

PHYSICAL DATA (approx. values)

Shore hardness	–	–	D 25	D 38	D 50	D 58	D 63	D 66
Flexural str. [MPa]	1.0	2.2	5	9	12	18–20	22–24	26
HDT [°C]			55–60	60	78	75–80	75–80	90
CTE, α_T [1/K]	50 x 10^{-6}	65 x 10^{-6}	65 x 10^{-6}	65 x 10^{-6}	55 x 10^{-6}	55 x 10^{-6}	55 x 10^{-6}	55 x 10^{-6}

Please consult the Product Data Sheet and Material Safety Data Sheet prior to any use and processing!

SikaBlock® DIMENSIONS – MODEL BOARDS

SikaBlock®	M80*	M150*	M330*	M440*	M450	M600	M680	M700	Volume/Board [Litre]	Piece/ Pallet	Volume/Pallet [Litre]
Colour	yellowish	light green	siena	apricot	orange	light brown	light brown	light brown			
DIMENSIONS [mm]											
1500 x 500 x 30				●	●	●	●	●	22.5	30	675
1500 x 500 x 50			●	●	●	●	●	●	37.5	36	1,350
1500 x 500 x 75				●	●	●	●	●	56.25	24	1,350
1500 x 500 x 100			●	●	●	●	●	●	75	18	1,350
1500 x 500 x 150				●	●	●	●	●	112.5	12	1,350
1500 x 500 x 200			●	●	●	●	●		150	8	1,200
2000 x 1000 x 50			●						100	25	2,500
2000 x 1000 x 100	●	●	●						200	12	2,400
2000 x 1000 x 150		●	●						300	8	2,400
2000 x 1000 x 200	●	●	●						400	6	2,400
2000 x 1000 x 250		●	●						500	5	2,500
2000 x 1000 x 300	●	●							600	4	2,400
2000 x 1000 x 350		●							700	3	2,100
2000 x 1000 x 400	●	●							800	3	2,400
2000 x 1000 x 450	●								900	2	1,800
2400 x 1300 x 100	●								312	12	3,744
2400 x 1300 x 200	●								624	6	3,744
2400 x 1300 x 400	●								1248	3	3,744

* other dimensions on request

SikaBlock® TOOLING BOARDS

SikaBlock®	M930	M945	M960	M970	M980	M1000/M1050		M1700
Density [g/cm³]	1.0	1.3	1.2	1.2	1.35	1.0		1.75
Colour	mint green	green	blue	turquoise	blue	white	grey	grey
Characteristics	very high dimensional stability; good surface aspect	very abrasion resistant; excellent milling properties; very high strength	very abrasion resistant; excellent milling properties; impact resistant	extremely abrasion resistant; excellent milling properties; very high strength	very abrasion resistant; excellent milling properties; very high strength	low density; good compressive strength and edge stability; low thermal expansion and high dimensional stability		wear resistant; low thermal expansion; good milling properties
Applications	foundry patterns and core boxes in test phase	foundry patterns and core boxes, metal sheet forming tools, mouldings and master models				gauges, moulds, foundry and master models		metal sheet forming tools, gauges, hammer forms

PHYSICAL DATA (approx. values)

Shore hardness	D 78	D 83	D 78	D 84	D 86	D 75	D 76	D 87
Flexural str. [MPa]	52	100	80	110	145	48	50	95
HDT [°C]	90	78	80	78	85	85	90	72
CTE, α_T [1/K]	55×10^{-6}	78×10^{-6}	85×10^{-6}	68×10^{-6}	60×10^{-6}	$50–55 \times 10^{-6}$		45×10^{-6}

SikaBlock® DIMENSIONS – TOOLING BOARDS

SikaBlock®	M930	M945	M960	M970	M980*	M1000 M1050	M1700	Volumen/Platte [Liter]	Stück/Palette	Volumen/Palette [Liter]
Colour	mint green	green	blue	turquo-ise	blue		grey			
DIMENSIONS [mm]										
1000 x 495 x 30					●			14.85	30	445.5
1000 x 495 x 50					●			24.75	36	891
1000 x 495 x 75					●			37.125	24	891
1000 x 495 x 100					●			49.5	18	891
1000 x 500 x 30		●	●	●				15	30	450
1000 x 500 x 50		●	●	●				25	36	900
1000 x 500 x 75		●	●	●				37.5	24	900
1000 x 500 x 100		●	●	●				50	18	900
1000 x 500 x 50							●	25	24	900
1000 x 500 x 75							●	37.5	16	900
1000 x 500 x 100							●	50	12	900
1500 x 500 x 50	●					●		37.5	28	1,050
1500 x 500 x 75	●					●		56.25	18	1,012.5
1500 x 500 x 100	●					●		75	14	1,050

* other dimensions on request

SikaBlock® MODEL BOARDS

SikaBlock®	M80	M150	M330	M440	M450	M600	M680	M700
Density [g/cm³]	0.08	0.15	0.24	0.35	0.45	0.60	0.68	0.70
Colour	yellowish	light green	siena	apricot	orange	light brown	light brown	light brown

BONDING OF SikaBlock®

Biresin®	Foam Adhesive	Kleber orange	Kleber braun
Mixing Ratio	1C-Adhesive, humidity curing	100 : 65	100 : 65
Potlife	open time: 10 min	20 min	20 min
Setting Time	6 – 8 h	6 – 8 h	6 – 8 h
Consumption – kg / m²	0.1	0.9	0.9
– kg / board	0.2 (2000 x 1000 mm)	0.7 (1500 x 500 mm)	0.7 (1500 x 500 mm)

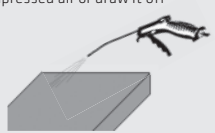
REPAIR / MODIFICATION OF SikaBlock®

Filler Biresin®	Spachtel orange	Spachtel braun resp. Modellspachtel M	
Mixing Ratio	100 : 2	100 : 2	100 : 50
Potlife	5 min	5 min	40 – 50 min
Setting Time	> 20 min	> 20 min	> 24 h

PREPARATION AND BONDING OF BOARDS

1.
Pre-roughening of the bonding areas is recommended (max. grain 80)

2.
Remove the dust with compressed air or draw it off



3.
Clean with Sika Reinigungsmittel 5 or acetone and allow to evaporate

4.
Requirement: plane parallelism

SikaBlock® TOOLING BOARDS

SikaBlock®	**M930**	**M945**	**M960**	**M970**	**M980**	**M1000/M1050**	**M1700**
Density [g/cm³]	1.0	1.3	1.2	1.2	1.35	1.0	1.75
Colour	mint green	green	blue	turquoise	blue	white / grey	grey

BONDING OF SikaBlock®

Biresin®	**Kleber grün**	**Kleber blau**	**Kraft Kleber Thix**
Mixing Ratio	**100 : 50**	**100 : 50**	**100 : 33**
Potlife	15 – 20 min	15 – 20 min	30 min
Setting Time	8 – 10 h	8 – 10 h	16 h
Consumption – kg / m²	0.7	0.7	0.7
– kg / board	0.5 (1500 x 500 mm)	0.35 (1000 x 500 mm)	0.5 (1500 x 500 mm) 0.35 (1000 x 500 mm)

REPAIR / MODIFICATION OF SikaBlock®

Sticking in of pieces out of the relevant **SikaBlock®** type

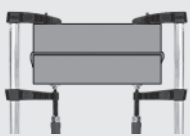
PREPARATION AND BONDING OF BOARDS

5.
Mixing up the resin component

6.
Homogenize the mixture thoroughly (Pay Attention to Mixing Ratio)

7.
Application with a brush or a toothed spatula on both sides

8.
Fix the bonding with sufficient clamps or a press



leave the clamps fixed for 4–10 h (according to adhesive)

workable after setting time

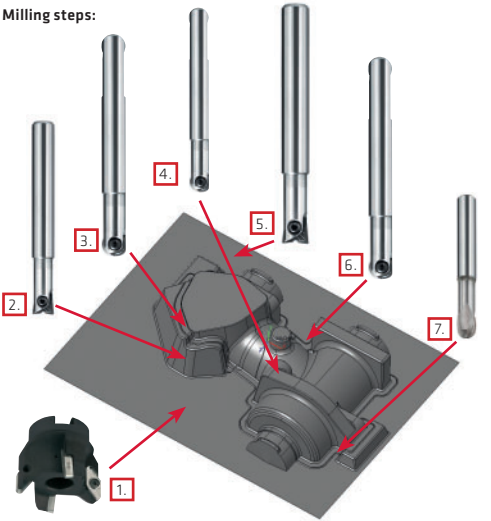
SikaBlock® – MAIN APPLICATIONS

Application Fields	SikaBlock®	M 80	M150	M330	M440	M450	M600	M680	M700	M930	M945	M960	M970	M980	M1000	M1050	M1700
	Density	0.08	0.15	0.24	0.35	0.45	0.60	0.68	0.70	1.0	1.3	1.2	1.20	1.35	1.0		1.75
Design, Styling,	Test Milling, Design Studies, Substructure for Clay, Simple Negative Moulds	●	●														
	Styling / Design Models, Substructure for Model Pastes		○	●	●	○											
	Simple Laminating Moulds			○	●	●											
Model making and simple mould manufacture	Master Modells, Core Models, Negatives Cubings /Data Control Models				○		●	●	●		○	○		○	○		○
	Laminating Moulds, Moulds /Tools for lower number of pieces (e. g. LP-RIM, Vacuum Forming, Core Boxes)						●	●	●	●					●		●
Foundry	Match Plates, Foundry Patterns									○	●	●	●	●	○		○
	Core Boxes									○	●	●	●	●	○		○
Manufacture of gauges, moulds and tools	Gauges, Testing Devices													○	●		●
	Vacuum Forming Moulds										○	○		○	●		●
	LP-RIM-Moulds										●	●		●	○		○
	Meta Sheet Forming Tools Hammer Forms										●	●		●			

● optimum suitable ○ suitable (according to application)

DETERMINATION OF MILLING PARAMETERS

Milling steps:



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CALCULATION BASIS

1. Form Symbols	ae: Cutting Width/Line spacing D: Diameter fz: Feedrate per tooth Vc: Cutting speed ap: Cutting depth n: Revolutions Vf: Feedrate z: Number of teeth
2. Conversion Forms	$Vc = \frac{n \cdot \pi \cdot d}{1000}$ [m/min]
	$n = \frac{Vc \cdot 1000}{d \cdot \pi}$ [1/min]
	$fz = \frac{vf}{z \cdot n}$ [mm]
	$Vf = n \cdot fz \cdot z$ [mm/min]

The milling parameters for the specific SikaBlock types were determined by LMT Kieninger GmbH using the model shown left. Further information concerning the recommended milling tools can be obtained from the left listed address.

SikaBlock® M80 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	VHM-Kugelfräser Solid carbide ball nose cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	593	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	4500	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	1	0.8	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	13500	12800	6400	6400	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M150 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	VHM-Kugelfräser Solid carbide ball nose cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	593	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	4500	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.74	0.5	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	10000	8000	6400	6400	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M330 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	VHM-Kugelfräser Solid carbide ball nose cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	593	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	4500	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.74	0.5	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	10000	8000	6400	6400	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M440 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	VHM-Kugelfräser Solid carbide ball nose cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	593	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	4500	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.74	0.5	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	10000	8000	6400	6400	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M450 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	VHM-Kugelfräser Solid carbide ball nose cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	593	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	4500	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.74	0.5	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	10000	8000	6400	6400	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M600 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline-Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	500	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	3800	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.74	0.62	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	8400	10000	6400	6400	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M680/M700 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	500	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	3800	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.74	0.62	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	8400	10000	6400	6400	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M930 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	650	650	600	250	400	400	200
Drehzahl / Revolutions [1/min]	5000	10400	15900	13300	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.42	0.42	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	6300	8800	6400	5300	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M945 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	500	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	3800	8000	16000	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.5	0.5	0.2	0.15	0.12	0.12	0.12
Vorschubgeschw./Feed rate (Vf) [mm/min]	5700	8000	6400	4800	3800	3800	3800
Schnitttiefe / Cutting depth (ap) [mm]	3	2	1	0.3	0.3	0.3	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M960 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	500	500	600	250	400	400	200
Drehzahl / Revolutions [1/min]	3800	8000	15900	13300	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.5	0.5	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	5700	8000	6400	5300	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M970 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	600	500	600	250	400	400	200
Drehzahl / Revolutions [1/min]	4600	8000	15900	13300	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.41	0.5	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	5700	8000	6400	5300	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M980 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant	Restmaterial Z - konstant	Restmaterial Z - konstant	Restmaterial Z - konstant	Schlichten ebene Bereiche	Schlichten Z - konstant	Schlichten Restmaterial Konturen
	Roughing Z - constant	Rest material Z - constant	Rest material Z - constant	Rest material Z - constant	Finishing flat areas	Finishing Z - constant	Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser	Torus-Kopierfräser	Kugel-Kopierfräser	Kugel-Kopierfräser	Torus-Kopierfräser	Kugel-Kopierfräser	Airline Schaftfräser
	Torus cutter	Torus copying cutter	Ball nose copying cutter	Ball nose copying cutter	Torus copying cutter	Ball nose copying cutter	Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	500	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	3800	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.5	0.5	0.2	0.15	0.1	0.1	0.1
Vorschubgeschw./Feed rate (Vf) [mm/min]	5700	8000	6400	4800	3200	3200	3200
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M1000 / M1050 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	650	650	600	250	400	400	200
Drehzahl / Revolutions [1/min]	5000	10400	15900	13300	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.42	0.42	0.2	0.2	0.15	0.15	0.15
Vorschubgeschw./Feed rate (Vf) [mm/min]	6300	8800	6400	5300	4800	4800	4800
Schnitttiefe / Cutting depth (ap) [mm]	5	2.5	2	0.5	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1

SikaBlock® M1700 – FRÄSPARAMETER / MILLING PARAMETERS

Frässchritte / Milling steps	1.	2.	3.	4.	5.	6.	7.
Strategie / Strategy	Schruppen Z - konstant Roughing Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Restmaterial Z - konstant Rest material Z - constant	Schlichten ebene Bereiche Finishing flat areas	Schlichten Z - konstant Finishing Z - constant	Schlichten Restmaterial Konturen Finishing rest material shapes
Fräsertyp / Milling tool	Torus-Fräser Torus cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Torus-Kopierfräser Torus copying cutter	Kugel-Kopierfräser Ball nose copying cutter	Airline Schaftfräser Airline end mill cutter
Durchmesser / Diameter [mm]	42	20	12	6	8	8	4
Zähnezahl / Number of teeth	3	2	2	2	2	2	2
Radius [mm]	3	4	6	3	1	4	2
Schnittgeschw. / Cutting speed (Vc) [m/min]	500	500	600	300	400	400	200
Drehzahl / Revolutions [1/min]	3800	8000	15900	16000	16000	16000	16000
Vorschub/Zahn / Feed rate per tooth [mm]	0.5	0.5	0.2	0.15	0.1	0.1	0.1
Vorschubgeschw./Feed rate (Vf) [mm/min]	5700	8000	6400	4800	3200	3200	3200
Schnitttiefe / Cutting depth (ap) [mm]	3	2	1	0.3	0.3	0.15	0.1
Fräsbreite/Zeilenbreite / Cutting Width/Line spacing (ae) [mm]	30	10	2	0.5	4	0.3	0.1