

May 2022

Product photos

surface: polished

General information

Slab- / block sizes	500 x 500 x 10 up to 200 mm
Tolerance value	
Length, width	- 0 / + 2.0 mm
Slab-thickness	- 0 / + 0.5 mm
Slab-surface	sawn
Machining	according to PORTEC information "Machining Guidelines"

Technical data at 20°C

Property	Standard	Units	Value
Density		g/cm ³	3.3
Shore hardness D	DIN EN ISO 868		90
Flexural strength	DIN EN ISO 178	MPa v N/mm ²	32
E-module	DIN EN ISO 527	MPa v N/mm ²	10700
Impact strength	DIN EN ISO 179-1	kJ/m ²	1
Compressive strength	DIN EN ISO 604	MPa v N/mm ²	69
Coefficient of thermal expansion 25-125°C	ISO 11359	ppm/K v 10 ⁻⁶ x K ⁻¹	14
Heat conductivity at 20°C	DIN EN ISO 22007-2	Wm ⁻¹ x K ⁻¹ v W/m x K	1.3
Specific surface resistance	DIN EN 62631-3-2	Ohm	>2x10⁶
Dimensional stability	DIN EN ISO 75-1	°C	108
Mean pore diameter		µm	19
Total porosity		%	21

Air flow rates

The numbers are average values for calculating air consumption for overpressure or underpressure applications. Specification in liter per minute per cm².

Pressure in bar	Plate thickness in mm							
	10	15	20	25	30	40	60	100
0.2	0.482	0.315	0.222	0.169	0.117	0.094	0.102	0.026
0.3	0.688	0.466	0.345	0.269	0.201	0.149	0.145	0.064
0.4	0.899	0.590	0.464	0.364	0.286	0.213	0.188	0.103
0.5	1.124	0.762	0.583	0.463	0.368	0.277	0.232	0.142
0.6	1.340	0.914	0.711	0.565	0.452	0.342	0.275	0.181
0.7	1.549	1.052	0.828	0.663	0.538	0.405	0.318	0.220
0.8	1.746	1.197	0.948	0.747	0.619	0.471	0.361	0.259
0.9	1.931	1.336	1.065	0.862	0.703	0.534	0.405	0.298
1.0	2.124	1.473	1.182	0.963	0.788	0.597	0.448	0.337
2.0	3.768	2.798	2.264	1.892	1.582	1.224	0.977	0.725
3.0	5.269	3.932	3.243	2.756	2.366	1.850	1.516	1.112
4.0	6.864	5.040	4.159	3.578	3.091	2.472	2.022	1.516
5.0	8.397	6.182	5.054	4.326	3.746	3.047	2.530	1.888

Comments

METAPOR BLACK could be used as a vacuum plate for optical measurement machines.

Please use carbide tools to mill the METAPOR MA 100 BLACK.

