METAPOR® BF 100 AL – Technical data

May 2022

Product photos

surface: polished

General information

Slab- / block sizes	500 x 500 x 10 up to 400 mm 1000 x 500 x 15 up to 200 mm
Tolerance value Length, width Slab-thickness (blocks of 500 x 500 x 400) Slab-thickness (blocks of 1000 x 500 x 200)	 - 0 / + 2.0 mm - 0 / + 0.5 mm - 0 / + 2.0 mm
Slab-surface	sawn
Machining	according to PORTEC information “Machining Guidelines”

Technical data at 20°C

Property	Standard	Units	Value
Density		g/cm^3	**1.8**
Shore hardness D	DIN EN ISO 868		**86**
Flexural strength	DIN EN ISO 178	MPa v N/mm^2	**52**
E-module	DIN EN ISO 527	MPa v N/mm^2	**6800**
Impact strength	DIN EN ISO 179-1	kJ/m^2	**8-10**
Compressive strength	DIN EN ISO 604	MPa v N/mm^2	**33**
Coefficient of thermal expansion 25-125°C	ISO 11359	ppm/K v $10^{-6} \times K^{-1}$	**32**
Heat conductivity at 20°C	DIN EN ISO 22007-2	$Wm^{-1} \times K^{-1}$ v W/m x K	**20.9**
Specific surface resistance	DIN EN 62631-3-2	Ohm	**>500**
Dimensional stability	DIN EN ISO 75-1	°C	**108**
Mean pore diameter		µm	**41**
Total porosity		%	**17**

Air flow rates

The numbers are average values for calculating air consumption for overpressure or underpressure applications. Specification in liter per minute per cm^2.

Pressure in bar	Plate thickness in mm							
	10	15	20	25	30	40	60	100
0.2	0.353	0.261	0.237	0.218	0.212	0.228	0.198	0.090
0.3	0.424	0.325	0.290	0.262	0.249	0.252	0.217	0.104
0.4	0.500	0.385	0.344	0.309	0.288	0.277	0.237	0.118
0.5	0.584	0.445	0.396	0.355	0.325	0.301	0.257	0.131
0.6	0.667	0.512	0.448	0.396	0.362	0.324	0.276	0.145
0.7	0.746	0.578	0.504	0.446	0.402	0.350	0.297	0.159
0.8	0.815	0.638	0.558	0.492	0.437	0.372	0.316	0.173
0.9	0.881	0.691	0.606	0.534	0.477	0.397	0.335	0.187
1.0	0.941	0.751	0.653	0.576	0.516	0.425	0.358	0.201
2.0	1.424	1.166	1.018	0.913	0.807	0.658	0.550	0.339
3.0	1.792	1.494	1.320	1.193	1.080	0.898	0.755	0.478
4.0	2.111	1.774	1.592	1.454	1.316	1.116	0.955	0.616
5.0	2.393	2.020	1.828	1.669	1.537	1.313	1.143	0.755