

## PROPERTIES OF *ionotec* BETA"-ALUMINAS

Property	Na-beta"	K-beta"
Phase content, % beta"	90-95	85-90
Porosity, %	1-2	2-3
Maximum pore size ( $\mu\text{m}$ )	5	8
Maximum grain size ( $\mu\text{m}$ )	20	20
Bending strength (MPa)	250–300	250-300
Strength Weibull factor	8-13	8-13
Fracture toughness ( $\text{MPa m}^{1/2}$ )	2-3	
Ionic conductivity ( $\text{ohm cm}^{-1}$ )		
25°C	0.002	0.0005
200°C	0.092	0.021
300°C	0.24	0.053
400°C	0.38	0.10
Thermal expansion coefficient		
0–500°C ( $\times 10^{-6}$ )	7.2	7.45
500–1000°C	8.6	8.5

*ionotec* manufactures a range of tubular shapes of standard dimensions given below. Flat discs and rectangular plates can be manufactured in any size in the range 10-70 mm across and 0.5-3.0 mm thickness. Ag-, Pb-, Sr- and Ba-conductive versions are also available.

Part Number	Length (mm)	Internal diameter (mm)	Minimum thickness (mm)	Maximum thickness (mm)
A1	70	6.5	0.5	1.5
A2	105	13	0.5	1.5
H1	40	20	1	2
B1	100	28	1	2
B2	220	29	1	2
C2	220	52	2	2

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