



Cathode Blocks

Technical Data Sheet Cathode: Grade MBTF Series

Typical Property	Unit	Test Method	Graphitized			Graphitic	
			Grade GRP	Grade GHD	Grade PHD	Grade MBTF-100	Grade MBTF-50
Real Density	g/cm³	ISO21687	2.19-2.21	2.19-2.21	2.18-2.20	2.12-2.16	1.98-2.05
Bulk Density	g/cm³	ISO12985-1	1.60-1.63	1.68-1.72	1.69-1.73	1.63-1.66	1.62-1.65
Electrical Resistivity	μΩ·m	ISO11713	9-12	8-11	8-11	17-20	25-30
Sodium Expansion	%	ISO15379.1	0.2-0.4	0.2-0.4	0.2-0.4	0.4-0.5	0.5-0.6
Compressive Strength	MPa	ISO18515	20-22	30-33	30-35	25-30	28-35
Flexural Strength	MPa	ISO12986-1	6.5-8.5	11-14	11-14	8-12	8-10
Open Porosity	%	ISO12985-2	16-18	14-15	13-15	15-18	15-17
Total Porosity	%	ISO5017	25-27	23-25	22-24	23-25	18-20
Thermal Conductivity	W (K · M)	ISO12987	100-120	110-130	110-130	30-40	15-25
CTE	10 ⁻⁶ /K	ISO14420	3.5-4.5	3.5-4.5	3.5-4.5	2.0-4.0	2.0-4.0
Ash Content	%	ISO8005	0.1-0.5	0.1-0.5	0.1-0.5	0.5-1.0	2.0-3.0

(425) 641-1566 | (800) 274-2008 | fax (425) 641-1583 | www.mbrashem.com | e-mail info@mbrashem.com

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