

Cathode & Sidewall Block Specifications

Description: Our grade, GB-G is made from 100% Petroleum Coke, in producing this graded, it is formed by vibration, heat treated by baking, and then graphitized.

Properties	UOM	Test Standard	GB-G	
			Min	Max
Real Density	g/cm ³	ASTM C-838	2.17	2.24
Bulk Density	g/cm ³	ASTM C-559	1.56	1.66
Porosity	%	ASTM C-830	-	20
Compressive Strength	N/mm ²	ASTM C-695	18	-
Flexural Strength	N/mm ²	ASTM C-651	9	-
Young's Modulus	N/mm ²	ASTM C-747	-	8
Electrical Resistivity	μΩm	ASTM C-611	10	13
Coefficient of Thermal Expansion	1 / K -10 ⁻⁶	ASTM C-228	-	3.5
Thermal Conductivity	W/mK	ASTM C-201	80	-
Ash Content	%	ASTM C-561	-	0.6
Sodium Expansion	%	Rapoport	-	0.4

Cathode & Sidewall Block Specifications

Description: Our grade, GB-GB is made from 100% Petroleum Coke, In producing this graded, it is formed by vibration, heat treated by baking, and then graphitized.

Properties	UOM	Test Standard	GB-G1	
			Min	Max
Real Density	g/cm ³	ASTM C-838	2.08	2.15
Bulk Density	g/cm ³	ASTM C-559	1.59	1.66
Porosity	%	ASTM C-830	-	22
Compressive Strength	N/mm ²	ASTM C-695	25	-
Flexural Strength	N/mm ²	ASTM C-651	10	-

Young's Modulus	N/mm ²	ASTM C-747	-	10
Electrical Resistivity	μΩm	ASTM C-611	15	22
Coefficient of Thermal Expansion	1 / K -10 ⁻⁶	ASTM C-228	-	3.8
Thermal Conductivity	W/mK	ASTM C-201	30	-
Ash Content	%	ASTM C-561	-	1.2
Sodium Expansion	%	Rapoport	-	0.5

Cathode & Sidewall Block Specifications

Description: Our grade, GB-8515, is primarily made of anthracite coal. The grade is 85% ECA and 15 % Graphite. In producing this grade, it is formed by vibration and heat treated by baking.

Properties	UOM	Test Standard	GB-G1	
			Min	Max
Real Density	g/cm ³	ASTM C-838	1.90	1.94
Bulk Density	g/cm ³	ASTM C-559	1.56	1.60
Porosity	%	ASTM C-830	-	20
Compressive Strength	N/mm ²	ASTM C-695	32	-
Flexural Strength	N/mm ²	ASTM C-651	7.5	-
Young's Modulus	N/mm ²	ASTM C-747	-	10
Electrical Resistivity	μΩm	ASTM C-611	28	40
Coefficient of Thermal Expansion	1 / K -10 ⁻⁶	ASTM C-228	-	4.0
Thermal Conductivity	W/mK	ASTM C-201	7	-
Ash Content	%	ASTM C-561	-	7
Sodium Expansion	%	Rapoport	-	0.7

Cathode & Sidewall Block Specifications

Description: Our grade, BG-G1 is made from 100% Petroleum Coke. In producing this grade, It is formed by vibration, heat treated by baking and graphitized.

Properties	UOM	Test Standard	GB-G1	
			Min	Max
Real Density	g/cm ³	ASTM C-838	2.18	2.24
Bulk Density	g/cm ³	ASTM C-559	1.66	1.72
Porosity	%	ASTM C-830	-	18
Compressive Strength	N/mm ²	ASTM C-695	23	-
Flexural Strength	N/mm ²	ASTM C-651	8	-
Young's Modulus	N/mm ²	ASTM C-747	-	10
Electrical Resistivity	μΩm	ASTM C-611	7	12
Coefficient of Thermal Expansion	1 / K -10 ⁻⁶	ASTM C-228	-	3.8
Thermal Conductivity	W/mK	ASTM C-201	95	-
Ash Content	%	ASTM C-561	-	0.6
Sodium Expansion	%	Rapoport	-	0.4

Cathode & Sidewall Block Specifications

Description: Our grade, GBG-73 is primarily made from anthracite coal. The grade is 70% ECA and 30% Graphite. In producing this grade, it is formed by vibration and heat treated by baking.

Properties	UOM	Test Standard	GBG-73	
			Min	Max
Real Density	g/cm ³	ASTM C-838	1.94	2.00
Bulk Density	g/cm ³	ASTM C-559	1.58	1.66
Porosity	%	ASTM C-830	-	16
Compressive Strength	N/mm ²	ASTM C-695	24	-
Flexural Strength	N/mm ²	ASTM C-651	8	-
Young's Modulus	N/mm ²	ASTM C-747	-	10
Electrical Resistivity	μΩm	ASTM C-611	23	37
Coefficient of Thermal Expansion	1 / K -10 ⁻⁶	ASTM C-228	-	3.8

Thermal Conductivity	W/mK	ASTM C-201	12	-
Ash Content	%	ASTM C-561	-	4
Sodium Expansion	%	Rapoport	-	0.7

Cathode & Sidewall Block Specifications

Description: Our grade, GBG-A10 is primarily made from anthracite coal. The grade is 100% ECA. In producing this grade, it is formed by vibration and heat treated by baking.

Properties	UOM	Test Standard	GBG-A10	
			Min	Max
Real Density	g/cm ³	ASTM C-838	1.84	2.00
Bulk Density	g/cm ³	ASTM C-559	1.32	1.66
Compressive Strength	%	ASTM C-830	26	16
Electrical Resistivity	N/mm ²	ASTM C-695	55	-
Ash Content	N/mm ²	ASTM C-651	-	-