

# CONTINUOUS CASTING GRAPHITE SOLUTIONS

## TYPICAL CHARACTERISTICS

Property	Unit	ISOSTATIC GRAPHITE						EXTRUDED GRAPHITE	
		2020	1940	2220	2230	2236	2554	6507	6172
Thermal conductivity	W/m°C	85	95	112	112	140	140	Wg 150 Ag 130	200
	Btu·Ft/R <sup>2</sup> ·H <sup>2</sup> ·°F	49	55	65	65	81	81	Wg 86 Ag 75	116
Density	g/cm <sup>3</sup>	1,77	1,79	1,84	1,9	1,78	1,88	1,7	1,86
	lbs/ft <sup>3</sup>	110.5	112	114	118	111	117	107	114
Porosity	%	9	12	8	4	15	9	16	7
Hardness	Shore	52	63	65	75	55	64	34	34
	Rockwell	95L	98L	80H	85H	80L	90H	25L	25L
Flexural strength	MPa	45	43	58	59	52	52	Wg 21 Ag 16	23
	psi	6,500	6,300	8,400	8,500	7,500	7,500	Wg 3,050 Ag 2,320	3,300
Compressive strength	MPa	98	89	124	129	105	120	Wg 38 Ag 38	47
	psi	1,400	13,000	18,000	18,750	15,200	17,400	Wg 5,510 Ag 5,510	6,700
CTE	$\times 10^{-6}/^{\circ}\text{C}$	4,3	5,2	5,5	5,4	4,0	4,3	Wg 4,5 Ag 5,1	3,3
	$\times 10^{-6}/^{\circ}\text{F}$	2.4	2.9	3.1	3.0	2.1	2.3	Wg 2.5 Ag 2.83	1.8
Electrical resistivity	$\mu\text{hm}\cdot\text{cm}$	1550	1320	1140	1140	965	965	Wg 800 Ag 900	800
	ohm-in	0,00061	0,00052	0,00045	0,0005	0,00038	0,00038	Wg 0.00031 Ag 0.00035	0,00031
Average grain size	$\mu\text{m}$	15	13	13	13	10	10	0,3	0,8
	inch	0,0006	0,0005	0,0005	0,0005	0,0004	0,0004	0,011	0,030
Max Standard block size	mm	1524x1524 x305	508x610 x1829	308x620 x2030	152x620 x915	308x620 x915	305x610 x915	500x500 x1830	Ø 75 to 200mm *
	inch	60x60x12	20x24x72	12x24x80	6x24x36	12x24x36	12x24x36	20x20x72	Ø 3" x 8" *
Ash	ppm	7500	3000	3000	10000	3000	10000	6500	30000
	%	0,75	0,3	0,3	1	0,3	1	0,65	3

Wg=> With the grain direction

Ag=> Against the grain direction

\* Length on request