



Experience has shown that results can vary considerably when only a single graphite grade is used to produce different alloys. Some important details should be considered before a grade can be recommended:

- The size of the segment being cast
- Material type being cast
- The casting parameters
- The quantity of metal being cast



- Other grades available on request

### Grades for Specific Uses

Alloy	Configuration	Die Material	
		Duragraph I20	Duragraph I50
CuZn	Round	■	
	Strip		■
	Rod		■
CuSn	Round	■	
	Strip		■
	Rod		■
CuNiZn	Round		■
	Strip		■
	Rod		■
CuNi	Round		■
	Strip		■
	Rod		■
Ag-Alloys	Round	■	■
	Strip	■	■
	Rod	■	■
Ag-Alloys	Round	■	■
	Strip	■	■
	Rod	■	■
GG / GGG		■	

### Physical Properties

	Unit	Duragraph 120	Duragraph 150
Average Grain Size	µm	15	10
Density	g/cm <sup>3</sup>	1.72	1.83
Open Porosity	Vol.-%	15	10
Average Pore Size	µm	2	1.5
Permeability	cm <sup>2</sup> /sec	0.15	0.04
Rockwell Hardness	HR 10/100	80	95
Specific Electrical Resistivity	µΩm	12	13
Flexural Strength	MPa	45	60
Compressive Strength	MPa	90	125
Young's Modulus	GPa	10.5	11.5
Thermal Conductivity	W/mK	90	100
Thermal Expansion 20-200 °C	10 <sup>-6</sup> K <sup>-1</sup>	2.9	4.0
Ash Value	ppm	200	20

**Duragraph 120** - A die casting material suitable for a wide range of alloys in a large number of different sections and sizes.

**Duragraph 150** - This grade has been developed for casting metal alloys that have a high affinity for carbon (carbide-forming alloys, such as Nickel Carbide).

### Dimensions

Duragraph 120	Duragraph 150
1550mm x 410mm x 200mm	1230mm x 500mm x 400mm
1230mm x 500mm x 400mm	610mm x 500mm x 400mm
610mm x 500mm x 400mm	

The state-of-the-art Erodex machine shop offers a full graphite product machining service for the continuous casting industry.