

CONTINUOUS CASTING



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

Grades for Specific Uses

		Die Material	
Alloy	Configuration	Duragraph 120	Duragraph 150
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			



Other grades available on request





Physical Properties

	Unit	Duragraph 120	Duragraph 150
Average Grain Size	μm	15	10
Density	g/cm³	1.72	1.83
Open Porosity	Vol%	15	10
Average Pore Size	μm	2	1.5
Permeability	cm ² /sec	0.15	0.04
Rockwell Hardness	HR 10/100	80	95
Specific Electrical Resistivity	$\mu\Omega$ m	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	10.6 K.1	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 × 410mm × 200mm	1230mm × 500mm × 400mm
1230mm × 500mm × 400mm	610mm x 500mm x 400mm
610mm × 500mm × 400mm	

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