

## METAL TREATMENT

### DEGASSING SYSTEMS.

### SPECIALTY GRAPHITE PRODUCTS.



#### Description:

RODABELL range of graphite for Aluminum cast house applications provides an extensive spectrum of materials - from isostatically pressed, extruded, die-molded, and vibration-molded to expanded graphite.

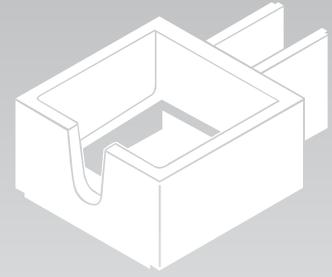
RODABELL GROUP also processes complex components from these materials. Finishing processes, such as coatings or impregnation allow raising oxidation resistance in high temperature environments.

Common properties and advantages of our graphite grades are:

- High mechanical strength
- Good sliding properties
- High thermal stability
- High thermal shock resistance
- Low wettability
- High corrosion resistance
- High thermal conductivity

Our CAD-CAM capability allows us the machining of any customized part. Typical applications for our machined components are:

- Gas injection Systems: rotors, shafts, and impellers
- Continuous casting operations: casting molds and lubrication rings



#### Gas injection Systems

The graphite grade materials selected for gas injection and distribution systems used in Aluminum alloys melts are exposed to extreme stresses, for instants: rapid temperature fluctuations combined with high operating temperatures, contact with the molten metals, highly corrosive flushing gas, and effect of alloying constituents.

RODABELL offers three different material grades for this application. The main difference between all of them is its performance and life time in the most demanding applications.

- **RG-EXGA:** This is an extruded high density graphite grade. It has a higher grain size and can be offered with or without anti-oxidation impregnation.

- **RG-EXGB:** This is an extruded medium-high density graphite grade. It has a medium grain size and can be offered with or without anti-oxidation impregnation.

- **RG-EXP:** This is our premium extruded lower density graphite grade. It has a lower grain size and high mechanical strength properties. Can be offered with or without anti-oxidation impregnation.

#### Technical Data

	Units	RG-EXGA NOX	RG-EXGB NOX	RG-EXP NOX
Bulk density	g/cm <sup>3</sup>	1,80	1,74	1,79
Open porosity	%	13	14	13
Max grain size	mm	0.8	0.8	0.8
Specific electrical resistance	Ωμm	7 II	8.2	7.3
		9 T	10.7	9.4
Young´s modulus	kN/mm <sup>2</sup>	10 II	8	10
		7 T	7	9
Tensile strength	N/mm <sup>2</sup>	8 II	10	13
		8 T	8	12
Flexural strength	N/mm <sup>2</sup>	15 II	15	20
		15 T	13	18
Compressive strength	N/mm <sup>2</sup>	40 II	32	43
		35 T	27	38
Thermal conductivity (20°C)	W/(K·m)	195 II	160	180
		155 T	120	140
CTE 20-200 °C	μm/(K·m)	2.7 II	2.6	2.1
		3.2 T	3.6	3.1
Ash content	%	5	5	5