

METAL TREATMENT

RODABELL 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:

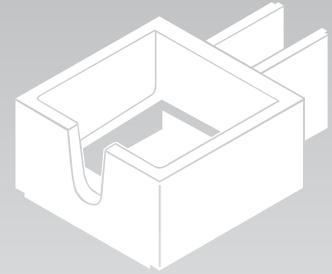
- High mechanical strength
- Good sliding properties
- High thermal stability
- High thermal shock resistance
- Low wettability
- High corrosion resistance
- High thermal conductivity

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

Technical Data

	Units	RG-EXP NOX	RG-ISA
Bulk density	g/cm ³	1,79	1,76
Open porosity	%	13	13
Max grain size	mm	0.8	0,3 (µm)
Permeability	cm ² /s	N/A	0,7
Specific electrical resistance	Ωµm	7,3 II	12,5
		9,4 T	
Young´s modulus	kN/mm ²	10 II	9,5
		9 T	
Tensile strength	N/mm ²	13 II	N/A
		12	T
Flexural strength	N/mm ²	20 II	40
		18 T	
Compressive strength	N/mm ²	43 II	90
		38 T	
Thermal conductivity (20°C)	W/(K·m)	180 II	115
		140 T	
CTE 20-200 °C	µm/(K·m)	2,1 II	4,1
		3,1 T	
Ash content	%	5	2



CASTING MOLD LUBRICATION RINGS

RODABELL jointly with major graphite suppliers have developed special graphite grades for aluminum continuous casting operations. Our premium extruded and isostatically pressed graphite material selection were conceived to provide the most demanding cooling and lubricating specifications.

RODABELL offers 2 different material grades for this application.

- **RG-EXP NOX:** This is our premium extruded lower density graphite grade. It has a lower grain size and high mechanical strength properties. An anti-oxidation impregnation treatment is performed in this material. Commonly used in traditional casting molds without automatic lubrication systems.

- **RG-ISA:** This is our isostatically pressed graphite grade. The properties of density, porosity, mechanical strength, are more homogenized along the material. In this kind of material the grain size is lower, therefore also the porosity. It has a special coating specially designed to work as lubricating rings for automatically lubricated casting systems.