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Rauschert

TECHNICAL CERAMICS

PYROLIT

Cordierite & Mullite

Innovation meets tradition.

PYROLIT
Cordierite & Mullite

Pyrolit is our brand name for a high-performance family of dense and porous ceramic materials based on cordierite and mullite (C 410, C 511, C 520, C 530 according to IEC 672), developed from an optimized magnesium–aluminum–silicate composition with added mullite and corundum.

TECHNICAL CERAMICS

HIGH-PERFORMANCE CHARACTERISTICS

- Outstanding thermal shock resistance
- High thermal resistance
- High electrical insulation
- Corrosion resistance
- Competitively low-priced manufacturing costs

YOUR COMPETITIVE ADVANTAGE

High-performance, cost-efficient products that strengthen your position in the market.

FOR EXTREME HEAT PROCESSES

The very good electrical and thermal properties recommend Pyrolit for applications in the heating technology.
Proven products are supports for:

- heating elements, e.g. multichannel tubes or spiral pipes,
- spark killers
- insulators in the field of high fast alternating temperatures
- welding back-ups
- sensor housing for thermocouples (steelmaking)
- crucibles and molds for foundries.

TYPICAL VALUES	PYROLIT 410	PYROLIT 511	PYROLIT 520	PYROLIT 530	PYROLIT 530/610
Material base	Cordierite	Cordierite	Cordierite	Cordierite	Mullite
Open porosity %	<0,5	25	20	30	25
Density	2.1	1.9	1.9	2.1	2.1
Flexural strength	60	25	30	30	30
Coefficient of linear expansion 20-600°C $10^{-6}K^{-1}$	2-4	4-6	2-4	2-4	5-7
Max. operation temperature	1280	1200	1240	1300	1600
Thermal conductivity W/mK	1.5-2.5	1.3-1.8	1.3-1.8	1.4-2	1.4-2
Thermal shock resistance	very good	very good	very good	excellent	good

PRODUCT PROPERTIES

Pyrolit C 410 is dense sintered cordierite with high mechanical strength. It is suited for applications that must not have any pores storing humidity inside the material.

Pyrolit C 520 is a finely grained porous material and due to its high content of cordierite it is very thermoshock-resistant. It is a standard material for many applications and because of the high output it can be produced low-priced.

Pyrolit C 530 shows an extremely high thermal shock resistance and high compression strength due to an increased content of alumina. It also has the highest thermal resistance of 1300 °C (~ 2400 °F) of all cordierite-based materials.

Pyrolit C 530/610 is a porous material with a high mullite content, offering excellent thermal resistance up to 1,600 °C (~2,900 °F). However, compared to cordierite materials, its resistance to rapid temperature changes is lower.

Your Inquiry – Fast & Precise Quotation
For a fast and precise quotation, please send us a drawing of the component along with details on quantities and tolerances. We will be pleased to advise you personally.

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