

Tracking Down Trends

One thing is clear: the demands placed on products of all kinds are constantly increasing. In order to shorten development times and strengthen competitiveness, the knowledge base in companies must be continuously expanded. The SPRINGER PROFESSIONAL knowledge platform makes an important contribution to the procurement of information. Our category MOST CLICKED ON SPRINGER PROFESSIONAL helps you to find information about trends in the world of ceramics. Here you can read the short versions of the most clicked monthly online articles from industries in which ceramics play an important role.

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Improving Kiln Insulation Performance

Ever-widening end use application possibilities, allied to novel production techniques, have resulted in a higher strength version of a unique refractory insulating product. The particular product in question is manufactured by Mantec Refractories in Stoke-on-Trent in the UK. The lightweight refractory's central role is as an insulating refractory in kilns and furnaces, helping companies to employ easier car configuration techniques or to lighten the overall weight while increasing thermal efficiencies in the superstructure, and thereby substantially reducing fuel consumption. It is seen as a modern substitute for more traditional insulation materials across a number of quite distinct applications. Ultralite is an ultra-lightweight, microporous refractory material – a specialist foamed aluminosilicate aggregate product that was formulated by ceramic technologists in the UK. The new refractory formulation



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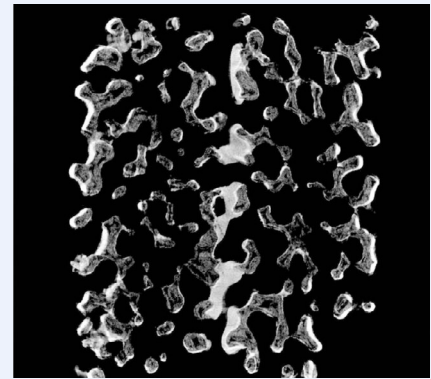
Ultralite is predominantly a high kaolin formulation mixed with a variety of other refractory materials, along with a number of organic additives to aid the proprietary foaming process.

that is used to produce it is said to give it the edge over, for instance, micaceous and siliceous minerals.

Read the detailed article under
www.springerprofessional.de/en/link/18428142

Hybrid Filters for Safer Components

Scientists of the TU Bergakademie Freiberg have developed a new process for the production of molten metal hybrid filters in the Collaborative Research Centre 920. These filters increase the quality and resistance of cast components for safety and lightweight constructions. The technology is suitable for removing various impurities and non-metallic inclusions from molten metal and making components cast from it safer and more resistant. During the production process of metallic casting materials, there are many different impurities in the melt, which are difficult or impossible to remove metallurgically. One way to remove these inclusions from the molten metal is to use intelligent ceramic filter materials or filter systems. The inclusions are retained on the filter surface or are deposited inside the filter.



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Computer tomographic image of a molten metal hybrid filter.

Read the detailed article under www.springerprofessional.de/en/link/17877134

“More Understanding is Needed About the Critical Role of Refractories”

Carol Jackson of the World Refractories Association and Harbi-Walker International talks about the environmental responsibility of the refractories industry and the role of refractories as an essential industry – especially in view of the current crisis.

Carol Jackson: “Since WRA was formed in 2014, our primary goals have been to promote the interests of the worldwide refractory industry and provide a global forum for the common interests of members, while serving as the voice of the industry. In addition, we have focused on making continuous progress in the areas of health, safety, global industry standards, and environmental issues. As we look ahead for the remainder of 2020 and beyond, these overall objectives continue to be priorities for our organization. None of us, however, could have expected the impact that the COVID-19 global pandemic would have on our industry and all the industries we serve.”

Read the detailed article under www.springerprofessional.de/en/link/18375900

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