INDUSTRIAL MINERALS

Zircon Industry Association - a new initiative for the industry

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ZIRCON INDUSTRY ASSOCIATION

The zircon industry has not escaped the impact of the slowdown in economic growth in China and elsewhere. In addition to the cyclical effects, technological development across a broad range of applications continues at a faster rate and demand patterns are evolving quickly.

Industry participants have therefore recognised that in order to best facilitate positive and sustainable growth, the industry cannot stand still and must adopt a more proactive stance.

Individual companies, of course, have their own development programmes, but, as has been demonstrated by other commodities, an industry body can add value by representing, championing and promoting the interests of all stakeholders. Hence the genesis of the Zircon Industry Association - ZIA for short.

These objectives are not dissimilar to those of many other industry associations, but it is the first objective - promotion of the use of zircon and zircon-based materials - that lies at the heart of ZIA's initial thrust.

ZIA's goal is to raise awareness of zircon's capabilities and potential where it matters and create demand pull - from manufacturers, from those who specify products which do or might contain zircon and ultimately from consumers.

In this respect, ZIA also has an educational role - the ultimate consumer has a choice between multiple products and it is important to ensure that where zircon as a constituent part imparts some clear value in terms of quality, durability, etc., the consumer is aware of the benefits of zircon.

Along with this there is a role for ZIA to facilitate and encourage the exchange of ideas and information on scientific and technical matters among stakeholders through the zircon value chain.

This extends to research and development initiatives at industry level - R&D is a vital plank of any industry and ZIA will engage with and support organisations and institutions interested in exploiting the potential of zircon and its derivatives in new applications.

An important task for most industry associations is dealing with regulatory issues and where appropriate ZIA will lobby for regulatory settings that do not impede the sustainable and profitable growth of the industry and key sectors within it. Alongside this, part of ZIA's role will be to promote best practice across the industry, particularly in the areas of sustainability and product stewardship.

Membership open

Membership of ZIA is open to all industry stakeholders - producers and consumers of zircon sand alike, as well as those who are involved with the industry in other capacities, for example traders and distributors, technology and equipment suppliers, logistics providers, consultants, etc.

ZIA has got off to a good start with all the major zircon sand producers having joined, along with a number of important consumers in the fields of opacifiers, fused zirconia and zircon chemicals as well as some important distributors. ZIA's website (www.zircon-association.org) is being developed and will soon become an important source of information about the industry.

Zircon: a remarkable material

Zircon is blessed with a remarkable range of properties - high refractive index, high melting point and thermal stability, low wettability to molten metals and high corrosion resistance to name some of them.

Over 50% of zircon consumption makes use of its high refractive index. For decades zircon has been the preferred opacifier (whitener) in traditional ceramic products such as tiles and sanitaryware.

Compared to substitutes like alumina, zircon has several advantages - low solubility in glass, the ability to make very glossy white glazes which do not yellow, no reduction in firing range, no side effects in traditional ceramics processes, and improved cleanability in the case of polished porcelain tiles.

Zircon is a versatile material and in its various derivative forms has integral input into many industrial applications, some basic, some highly sophisticated. It is also a significant component of personal consumption and the exploding trend towards urban living in developing economies.

Ceramics, precision casting, refractories, catalysts, fuel cells, fibre optics, nuclear power generation, water treatment and medical prosthetics are just some of the applications.

The mineral sands industry has invested significantly in additional capacity and quality improvement in recent years, in addition to which there are numerous new projects around the world with the potential to add to the supply of zircon.

Zircon production is centred on Australia and South Africa - which account for 78% of the world's production - and, in 2011, 1.41m tonnes zircon were produced.

The main market is the ceramics market, in which China is the largest end-user, which accounts for 54% of the zircon sales but zirconium chemicals are the second largest end-market with 22% of the market while the refractories and foundry markets take up 12% each.

As new applications are developed, there should therefore be no concerns about the ability of the industry to keep up with growth in demand.

ZIA's objectives are:

- To promote the use of zircon and zircon-based materials in a wide range of applications;

- To represent the collective interests of members in international industry, trade, and other forums;

- To consult, for purposes of its research or investigations, with governments and agencies and with other organisations and entities;

- To collect and provide technical and other industry information, commercially sensitive or proprietary information always excluded;

- To provide a forum for co-operation and exchange of ideas and information on scientific and technical matters related to the zircon industry.