

WEAR RESISTANT TECHNOLOGIES

DURASTRIKE® ZTA

ABRASION RESISTANT CERAMIC
FOR SEVERE IMPACT
APPLICATIONS



DESIGNED TO PERFORM & OUTLAST

DURASTRIKE® ZTA, Dense Zirconia Toughened Alumina was designed & developed after extensive field trials and R&D collaboration to overcome abrasion challenges in severe impact applications where traditional materials under perform.

BENEFITS



Improve productivity,
profitability & safety



Reduce downtime &
maintenance



Cost effective upgrade to
traditional wear materials

PERFORMANCE CERAMICS & REFRACTORIES

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DURASTRIKE® ZTA is in a special class of ceramics where zirconia impregnation controls the micro crack propagation within the tile under impact, delivering significant resistance to abrasion and fracture. It significantly outperforms traditional dense aluminium oxide ceramics when considering both impact and erosion.

Common failures - Examples of traditional wear materials

Standard ceramic fracture & joint erosion



Temporary metal patches



DURASTRIKE® ZTA - High performance ceramic material

No fractures or joint erosion



DURASTRIKE® ZTA delivers increased impact wear against traditional ceramics by 3 - 6 times in applications where the impingement angle is $>30^\circ$ with the conveyed material density between 110 - 165 lb/cu ft (1.76 - 2.64 g/cm³).

Property	Durastrike™ ZTA
Density, g/cm ³	> 4.17
Hardness, HV	1900
Fracture Toughness, K _{IC}	6.8
Flexural strength of MOR, MPa	450

Typical Markets & Applications

Mining
(all types)

Port
facilities

DRI
charging

Sinter
plant

Material
transfer points

Piping
components

Slurry pump
components

Leverage Our Expertise.

Saint-Gobain Performance Ceramics & Refractories engineers and researchers collaborate with you, our customers, to solve operational challenges with abrasion resistant ceramic lining systems.



For more information:

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