

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

SAINT-GOBAIN

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

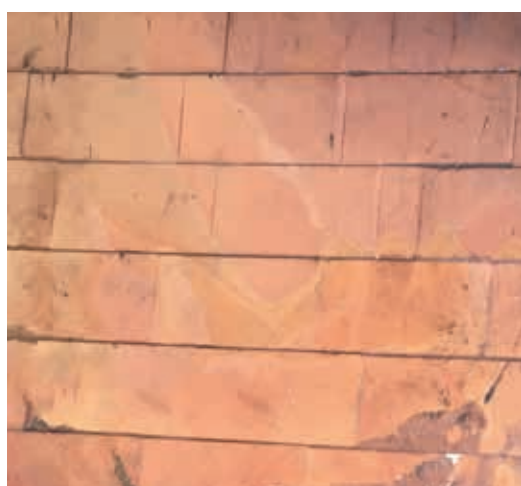


Temporary metal patches



## 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/cm<sup>3</sup>).

Property	Durastrike™ ZTA
Density, g/cm <sup>3</sup>	> 4.17
Hardness, HV	1900
Fracture Toughness, K <sub>IC</sub>	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.

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