



Composite Ceramic Wear Liners

Mining and Mineral Processing

BTough™ Composite Ceramic Wear Liners

www.trelleborg.com/fluidhandling



ENGINEERING DESIGN

Trelleborg manufacture a complete range of BTough™ composite ceramic wear liners for use in bulk material handling environments including slurry through to oversize material applications.

Trelleborg will design and engineer 'fit for purpose' wear liner packages to achieve service longevity, predictable wear rates and liner layouts to suit the asset and application.

Trelleborg can refurbish rotatable spares or supply new equipment as a one stop shop, arranging fabrication, on site abrasive blasting and painting and fitting wear liners.

Trelleborg welcomes the opportunity to work closely with site personnel on liner improvements, chute audits and recommendations.



WEAR AND ABRASION - WHY USE BTOUGH™ CERAMICS?

Composite ceramic wear liners consistently demonstrate and prove to be the lowest cost per tonne wear liner on the market.

- Very high quality rubber and ceramic.
- Competitively priced.
- Designed 'Fit for purpose' wear liners.
- Single liners or kits.
- Complete design and technical support.
- Energy absorbent design.
- Extended wear life compared to steel liners.
- Monitoring and reporting support.
- Very low cost per tonne ROI.

BTOUGH™

Trelleborg BTough™ composite ceramic wear liners are designed for medium to heavy duty applications.

Utilising Trelleborg's premium rubber compounds and independently quality tested alumina ceramics, BTough™ is a proven and approved composite ceramic wear liner within the Australian mining sector.

Liners can be supplied cut and studded to replace steel liners without any modifications to the chute's steel work.

To support reduced lead times and support of client schedules, Trelleborg stocks, cuts and studs BTough™ liners in our Kewdale rubber and ceramic facility.

BTOUGH™ CERAMIC ON RUBBER MATS

Trelleborg BTough™ ceramic on rubber mats are available in varying thickness to suit different applications, the mats are supplied with a CN bonding layer and are ideal for lining over the top of rubber in high wear areas such as cyclone launders, dividers, screen underpans.

BTough™ hex ceramic mats are approximately 500 x 500mm, available with two different size hexagonal tiles:

- 20mm AF for flat surfaces (no rubber between tiles).
- 13mm AF for curved surfaces (approx. 1mm of rubber between tiles).
- 6mm square tiles for tight curved surfaces (down to approx. 150mm diameter).

All BTough™ hex ceramic mats are supplied with a bonding layer so no buffing/preparation is required for installation on site.

BTOUGH™ COMPOSITE CERAMIC WEAR LINERS FOR USE IN BULK MATERIAL HANDLING ENVIRONMENTS

BT32



- 20mm tile
- 6mm steel backing plate
- 6mm rubber

BT64



- 50mm tile
- 6mm steel backing plate
- 8mm rubber

BTLF



- 50mm tile
- 6mm steel backing plate
- 6mm rubber

BTMAX



- 100mm tile
- 6mm steel backing plate
- 7mm rubber

BTMAX



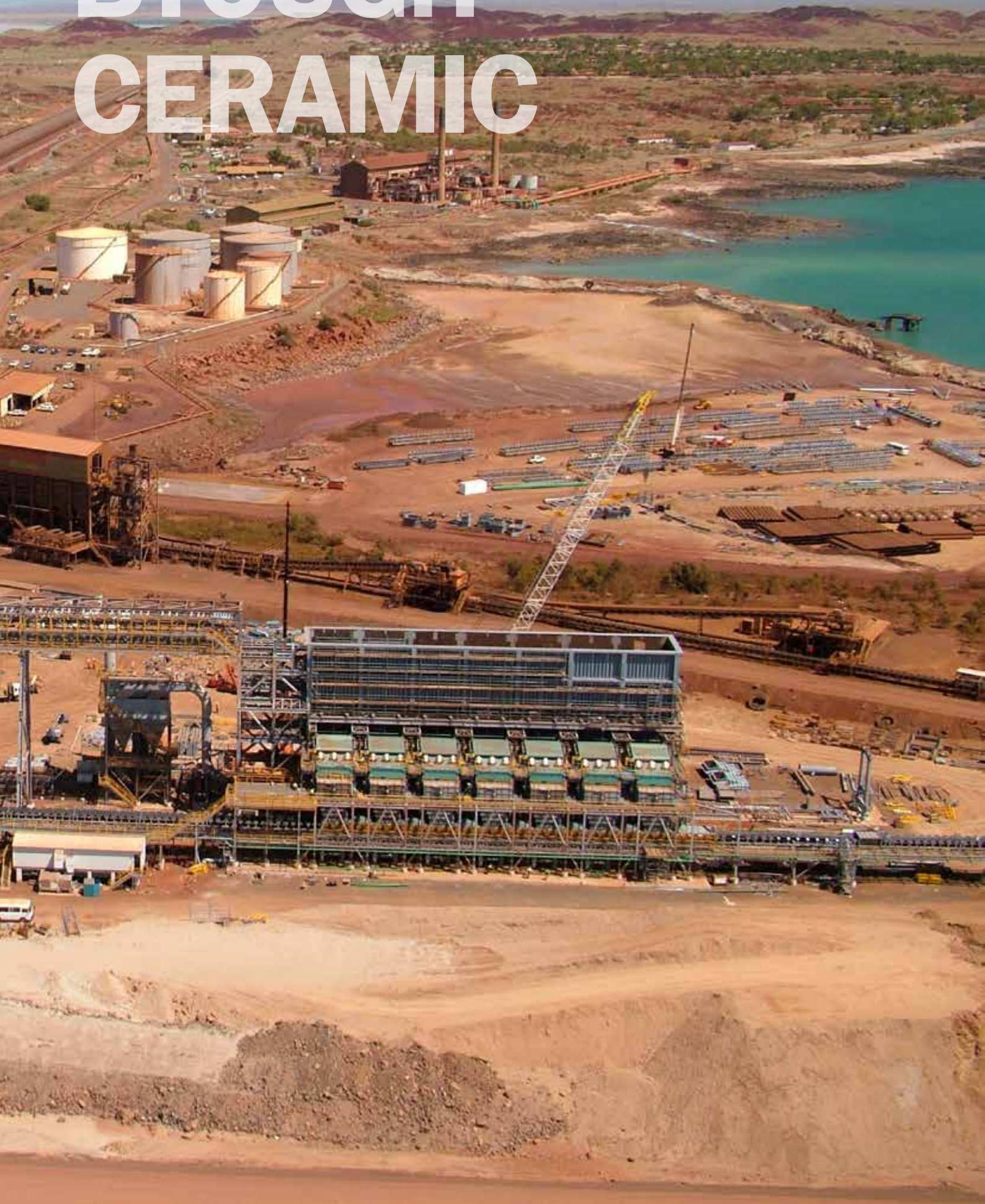
- 100mm tile
- 6mm steel backing plate
- 7mm rubber

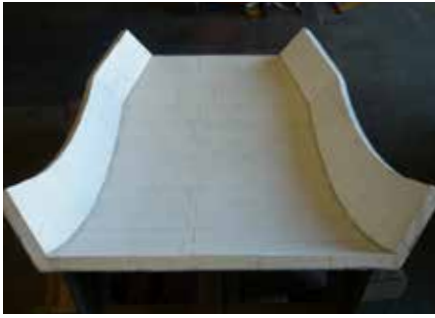
BT Ceramic



- BT Ceramic on rubber mat

BTOUGHT™ CERAMIC





BTOUGH™ CERAMIC VERSUS NIHARD CASE STUDY

Application:

- Primary crushed copper/gold ore.
- Material size ≤600mm.
- Drop Height 3m.

Results are following a 12 week trial.

BTOUGH™ DIRECT BOND CERAMICS

When traditional fixing and bolting methods cannot be employed Trelleborg's industrial ceramic tiles are produced with the highest quality alumina ceramic. We offer only the highest wear materials available for abrasion protection.

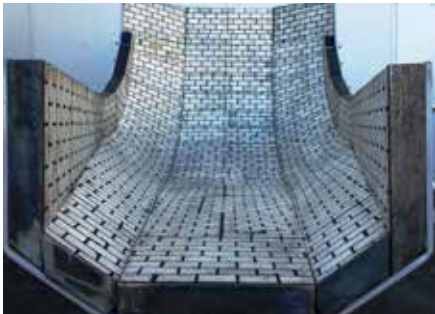
Trelleborg's alumina ceramic tiles deliver excellent wear resistance, excellent mechanical in slurry and sliding abrasion environments. Trelleborg can supply alumina tiles in a variety of standard sizes and shapes that can be installed to suit your application. Our trained applicators employ the use of high strength ceramic tile adhesive be used for bonding the alumina tiles where applicable.



The main impact zone was fitted with composite NiHard liners at the same time the BTough™ ceramic was installed.

By comparison the NiHard liners lost approximately 30mm compared to an average loss of around 2-4mm for the ceramics.

BTough™ ceramic wear liner applications



Deflectors



Completed re-designed deflector ready for service



Spill face sloping walls and loading chutes



Old obsolete design



New re-design



Launders

Welcome to the World of Trelleborg



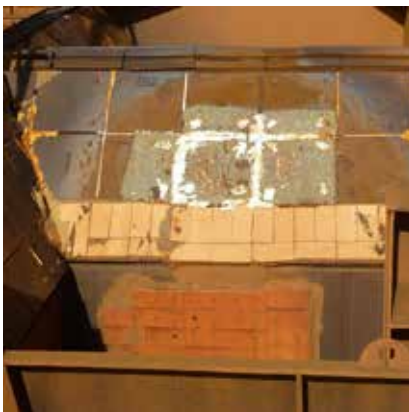
WORN EQUIPMENT

Deflectors, discharge chutes, loading boots, apron feeders.

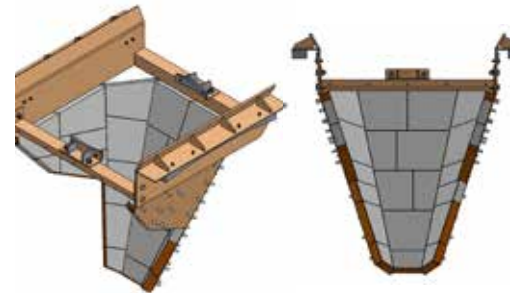
INSPECT AND REPORT

Liner removal.
Strip and assess.
Report and recommendations to client.

COMPLETE DRAFTING PACKAGE



ALL LINERS TO BE VIEWED AND MARKED WITH STUDS FACING UPWARDS



DESCRIPTION		DATE	
1	BY: [Name]	2	DATE: [Date]
2	CHECKED: [Name]	3	DATE: [Date]
3	APPROVED: [Name]	4	DATE: [Date]



BLASTING, PAINTING, REPAIR AND FABRICATION

STUDDING, CUTTING AND FITTING

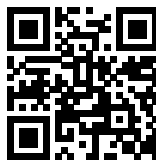
COMPLETED RESULT



Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative solutions accelerate performance for customers in a sustainable way.

WWW.TRELLEBORG.COM

Scan here to view more product information



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