CERAMIC WEAR PROTECTION

Anti-abrasion and anti-erosion coatings for cement mills

FOR SELECTED DUTIES BELOW 120°C

01 CERAMIC PRIMER

1180 NMB Ceramic Coat

FLEXIBLE PRIMER · ST3 GRINDING

Nano Molecular Bonding (NMB) anchors 1180 to ST3-ground steel without abrasive blasting for specified applications. The flexible ceramic primer resists brittle cracking and peeling, helping keep the full system bonded.

02 CERAMIC WEAR LAYER

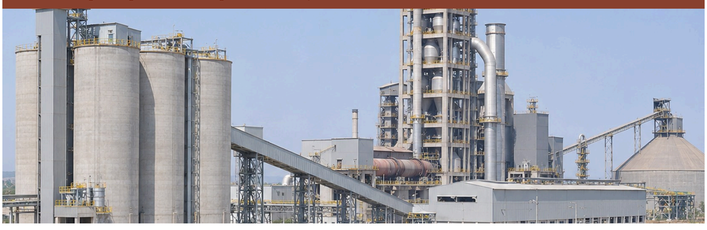
731 ER XTREAM

NANO ZIRCONIUM WEAR RESISTANCE

This fibre-reinforced putty uniquely uses hard nano zirconium for substantially better abrasion and erosion resistance than conventional ceramic-bead or standard zirconium coatings. Higher coverage per kg reduces coating consumption.

CEMENT MILLS

Standalone grinding units and integrated cement plants



Illustrative problem and after views

01–05 Grinding & integrated · 06 Integrated coal preparation



CEMENT DUST SCOURS OUT GROUT AND EXPOSES THE SEPARATOR TILE EDGES.

01

Finish-Mill Separator Linings

APPLICATION

Worn joints, tile edges and approved local wear zones in cement separator cones and casings.

TECHNOLOGY

1180 primes the compatible prepared surface. 731 ER XTREAM fills local wear and fairs the transition to sound lining.

CUSTOMER GAIN

Keep sound lining in service longer and reduce the amount of relining at shutdown.



FINE CEMENT DUST SCOURS THE LEADING EDGES AND FACES OF FIXED GUIDE VANES.

02 · SITE TRIAL

Finish-Mill Separator Guide Vanes

APPLICATION

Local wear on stationary guide vanes in finish-mill air separators.

TECHNOLOGY

1180 primes the prepared steel. 731 ER XTREAM rebuilds worn edges and faces to the original profile. Maintain vane angle and spacing.

CUSTOMER GAIN

Help preserve airflow through the separator and extend guide vane life.



CEMENT POWDER CUTS GROOVES INTO THE DIVERTER BODY WHERE THE FLOW TURNS.

03

Powder Lines & Diverter Bodies

APPLICATION

Dry cement and fly-ash line elbows, plus local wear inside powder diverter bodies.

TECHNOLOGY

1180 primes the metal. 731 ER XTREAM rebuilds worn pockets and protects the surfaces struck by the powder stream.

CUSTOMER GAIN

Help retain flow geometry and reduce repeated pipe and valve-body replacement.



FINE POWDER WEARS A GROOVE IN THE MILL SHELL BEHIND THE LIFTING LINER.

04

Tube-Mill Shell Under Lifters

APPLICATION

Worn backing surfaces beneath steel lifting liners in tube-mill pre-drying chambers.

TECHNOLOGY

1180 primes the exposed shell. 731 ER XTREAM rebuilds local loss to the specified support profile before the liner is refitted.

CUSTOMER GAIN

Restore the seating surface and protect the shell during the next liner service cycle.



DUST ERODES IMPELLER EDGES, CHANGING THE BLADE PROFILE.

05

Cement Dust Fan Impeller Edges

APPLICATION

Local leading-edge wear on cement dust extraction impellers, after part assessment.

TECHNOLOGY

1180 primes the prepared edge. 731 ER XTREAM restores the approved profile. Check clearances and balance before restart.

CUSTOMER GAIN

Help retain blade profile and reduce repeated rotor repair or replacement.



HIGH-VELOCITY COAL FINES SCOUR THE CYCLONE WALL AND OUTLET.

06 · INTEGRATED PLANTS

Coal Cyclones & Outlet Pipes

APPLICATION

Coal-preparation cyclone inlets, wall wear zones and connecting pipes at integrated cement plants.

TECHNOLOGY

1180 primes the substrate. 731 ER XTREAM forms a nano zirconium wear layer at coal-dust impingement points.

CUSTOMER GAIN

Slow local thinning and protect the cyclone profile between inspections.

Confirm the peak metal temperature, substrate condition and particle or slurry duty before specification. Use the approved wet-service temperature and chemistry for immersed parts.