CERAMIC WEAR PROTECTION

Anti-abrasion and anti-erosion coatings for steel 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.

STEEL MILLS

Cooling water, abrasive slurry and wet material handling



Illustrative problem and after views



WET GRIT SCOURS GROOVES INTO THE SLURRY PUMP VOLUTE AND CUTWATER.

01

Abrasive Slurry Pump Casings

APPLICATION

Steelworks slurry pump casings, volutes and cutwaters in approved wet service.

TECHNOLOGY

1180 primes the prepared casting. 731 ER XTREAM rebuilds local wear to the specified flow profile.

CUSTOMER GAIN

Slow wet abrasion and help extend the interval between wet-end repairs.



ABRASIVE WASTE CUTS CHANNELS INTO THE FLUME FLOOR AND SIDEWALL.

02

Wastewater Flume Wear Zones

APPLICATION

Scoured flow surfaces in approved steel mill wastewater flumes.

TECHNOLOGY

1180 primes the compatible prepared lining. 731 ER XTREAM fills local grooves to restore the channel profile.

CUSTOMER GAIN

Help keep solids moving through the flume and reduce repeat lining repairs.



SCALE GRIT SCOURS OUT GROUT AND EXPOSES TILE EDGES IN THE SLUICE.

03

Scale-Water Sluice Tile Joints

APPLICATION

Wear at tiles and lining transitions in downstream rolling-mill sluices carrying cooled scale water.

TECHNOLOGY

1180 primes the approved prepared surface. 731 ER XTREAM fills recessed joints and restores a flush transition to sound tiles.

CUSTOMER GAIN

Reduce places where grit can lodge and keep sound lining in service longer.



PITTING AND EROSION EAT INTO THE INLET LIP OF THE COOLING-WATER PUMP.

04

Caster Cooling-Water Pump Inlets

APPLICATION

Suction covers and eroded inlet surfaces on casting cooling-water pumps.

TECHNOLOGY

1180 primes prepared metal. 731 ER XTREAM rebuilds worn areas to the specified inlet contour.

CUSTOMER GAIN

Help preserve inlet geometry and extend service between pump overhauls.



RECYCLED PROCESS WATER PITS THE WALL INSIDE THE STRAINER HOUSING.

05

Recycled-Water Strainer Housings

APPLICATION

Erosion and corrosion on the internal flow surfaces of steel mill recycled-water strainer housings.

TECHNOLOGY

1180 primes the prepared metal. 731 ER XTREAM rebuilds local pitting while preserving the basket seating and seal profiles.

CUSTOMER GAIN

Protect internal flow surfaces and help extend housing service life.

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.