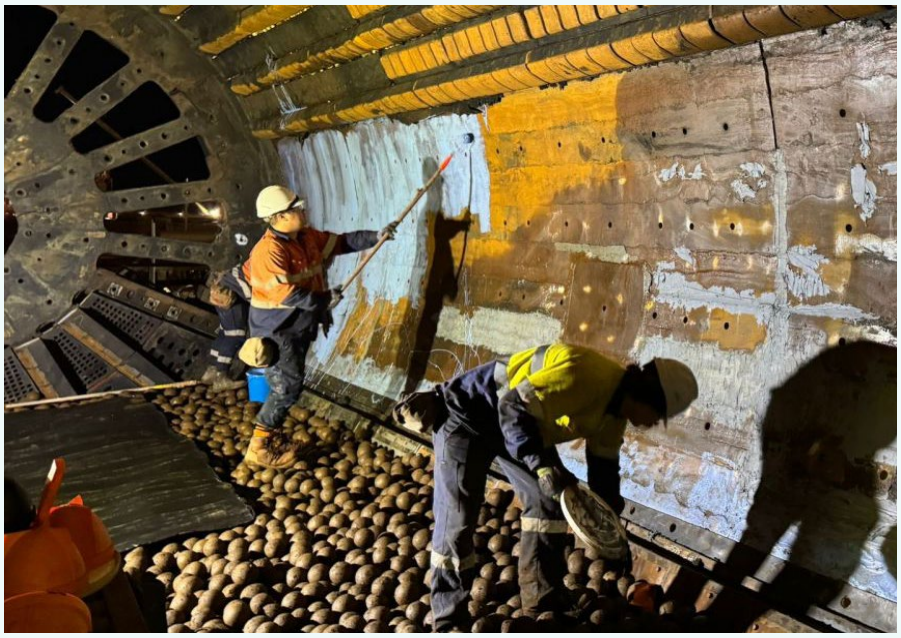
BALL MILL SHELL RESTORATION

Rebuilding and Restoration of Worn Metallic Surfaces using Belzona

Industry:	Mining
Application:	Ball Mill Restoration
Products:	Belzona 1111
Customer Location:	WA, Australia
Application Date:	Aug 2025



Application of Belzona 1111 to rebuild and re-profile worn metallic surfaces

PROBLEM

A ball mill used in Nickel mining operations was taken offline for a full reline, internal clean, and lifter replacement.

During the shutdown, inspections identified typical reline related surface issues such as eroded or uneven liner seat contact areas, corrosion/abrasion damage adjacent to joints and minor surface defects that can compromise liner seating.

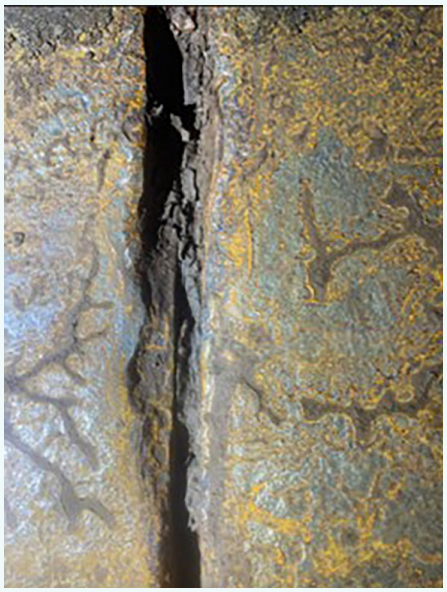
If not corrected, these issues can lead to poor liner fit and movement, and accelerated wear and potential shell exposure.

APPLICATION

To restore the integrity of the ball mill shell prior to relining, **Belzona 1111 (Super Metal)** was applied to rebuild and re-profile worn metallic surfaces identified during shutdown inspections.

Following thorough surface preparation, Belzona 1111 was used to fill erosion, pitting, and localised defects in liner seat contact areas and around joint-adjacent wear zones, creating a sound, continuous substrate for accurate liner seating.

Inspection of ball mill internal surfaces



Metal surface showing wear and corrosion

OUTCOME

Belzona 1111 was used to successfully rebuild damaged areas and create a smooth, even base for the liner installation. It also formed a protective barrier against further corrosion and abrasion, helping deliver long-term performance and safe, reliable processing operations.

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