

ASGCO®'s Armorite® Increases Wear-Plate Life at Copper Mine Concentrator

Industry: Copper Mine, SAG Mill

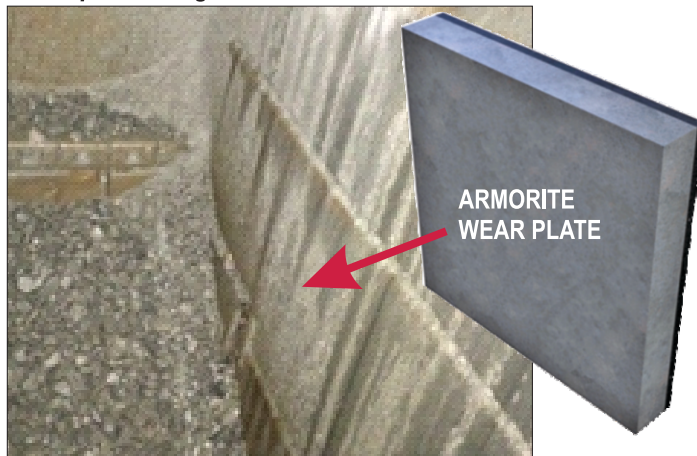
Product: ASGCO® Armorite® Wear Plates

Objective: To provide a wear plate that proved to provide both impact and abrasion resistance in tough mining applications.

Challenge:

Due to the highly abrasive ore properties and the occasional 2"-3" steel balls from the SAG mills made this application very difficult for the mine. The average life of previous wear plates from two different manufacturers was on average about 6-8 weeks. Both the Sandvik® HX900 and the ESCO® Kwik-Lok® carbide wear plates were cracking due to the high impact of the ore and simply do not provide the wear protection the mine was looking for.

Armorite® Smooth Wear Liners still in service after processing over 6.5 million tons of ore!



Armorite® is an extremely hard (700 Brinell - 63Rc), laminated bi-metallic, wear resistant composite. Armorite® Typical Bond Zone Product Features:

- White iron: Modified AS2027 15/3 Cr Mo
- Vacuumed brazed and liquid nitrogen cooled to achieve a high strength joint
- Mild steel backing offers strength, machinability, and impact resistance
- Can be welded in place, through-bolted, stud bolted, drilled, tapped, keyed
- Ease of fitment, very versatile



Solution:

After reviewing the application, it was determined that the Armorite® was the Solution to this problem. The extremely hard, laminated bi-metallic, wear resistant composite provides maximum impact and abrasion protection in high wear areas, with the mild steel backing cushioning the white iron, enabling it to withstand the impact.

Results:

The pieces of Armorite® wear plate were welded into place and showed excellent results. Within 9 months of weekly, then monthly monitoring, the customer realized how great the product was. The mine now estimates the Armorite® wear liners will give them approximately 1 year of life before change outs.

The Armorite® Wear Liners provided 6 times longer wear life than the previous brand wear plates!!!

Based on those results the plant proceeded with a study to look at other high wear and impact applications where the Armorite® would prove successful. ASGCO®'s Armorite® proved to be both impact and wear resistant, demonstrating "one year of wear life", and proved to be extremely cost effective and a great savings for the mine in both dollars and time...

HX900 is a registered trademark of SANDVIK® Mining & Construction. Kwik-Lok® is a registered trademark of ESCO® Corporation.

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