

ArmorPIPE™ 9200 Series

Robust Ceramic Composite Lined Borehole Casings for High Stress, High Velocity Shotcrete and Backfill Transportation.

The ArmorPIPE™ 9200 Series is constructed from a rigid metallic casing which is lined with our durable Ceramic Composite Lining designed to combat severe abrasive conditions. The lining thickness can range from 6mm to 20mm, and this allows the system to be optimised for individual service conditions. This robust lining excels in high stress abrasive slurry conditions and aggressive vertical boreholes. It is renowned for its success in high velocity slurry transportation of over 40m/sec. This makes the ArmorPIPE™ 9200 Series ideal for backfill and shotcrete borehole applications.

Coupling Systems

All traditional threaded, weldable, flanged and Victaulic style coupling systems can be accommodated. Casing sizes are selected to ensure the finished internal diameter matches your pipe's existing hydraulic diameter. ArmorPIPE™ linings are easily repairable at end of life; producing quicker turnaround times, allowing the casing to be recycled and ultimately providing a dramatic reduction in the long-term costs. Pay for fabrication once and simply maintain the lining for the life of the system.



Benefits

- Ceramic reinforcement with a high Mohs Hardness produces excellent wear characteristics
- Monolithic lining – no joints or seams
- High tensile adhesion between lining and substrate removes the risk of delamination, undercutting or under-film corrosion
- Energy absorbing matrix resists thermal-mechanical shock, reduces brittleness, and ensures reliable bonding
- Solvent free polymer matrix prevents pinholes

Applications

ArmorPIPE™ 9200 Series can be utilised in a variety of pipe applications:

- High velocity slurry handling
- Dry pneumatic conveying
- Hydraulic backfill/paste fill and rockfill borehole casings
- Slick line/shotcrete lines
- Process slurry and tailings transport pipes
- Distribution fittings, nozzle and cyclone clusters
- Underground boil box/kettle junctions
- Cyclone underflow/overflow pipes & bends



Design Features

ArmorPIPE™ components are designed to accommodate the following service requirements and conditions:

Ease of installation	Hydraulic Design
Handling/weight limitations	External size constraints
Environmental concerns	Required System Life
System Design Pressure	

Chemical Resistance

The ArmorPIPE™ 9200 Series is suitable for full immersion service in a range of acids, alkalis and hydrocarbons including (tested at 21°C [70°F]):

10% Hydrochloric	6% Sodium Hypochlorite
5% Nitric	Bunker C
5% Phosphoric	Diesel Fuel
10% Sulphuric Acid	Isopropyl Alcohol
28% Ammonium Hydroxide	Kerosene
50% Potassium Hydroxide	Naphtha
50% Sodium Hydroxide	Salt Water & Sewage

