

Strata **3D SPRAY PANELS** FOR COAL MINING CONSTRUCTION

3D SPRAY PANEL BENEFITS

- Lightweight and uniform simplifies use and handling
- Quick installation with no additional formwork
- Final concrete-sprayed structure completely airtight and high strength
 - Proven to withstand up to 15psi of overpressure



The Strata 3D Spray panels consist of a layer of galvanized steel mesh on either side of an expanded polystyrene core. The layers are welded together by diagonal inner-truss wires which create a strong and rigid structure. The 3D panels are easily joined in various configurations for mining construction and then sprayed with a concrete coating. The strength of the panels combined with the concrete layer provide an effective and air-tight structure that withstands shear force and overpressure.

VENTILATION OVERCASTS

- Panels placed across the mine entry and fastened with clips or flat wire mesh
- Held in place with rebar
- Top deck placed across the top
- Coated with gunite or shotcrete to form a monolithic, airtight structure
- Tested and proven to withstand 15psi of overpressure
- Withstands pressure differential of 9-inch water gauge

120PSI VENTILATION SEALS

- The MSHA approved PMR 120psi ventilation seal is constructed using 3D panels and rebar
- Rebar secured into the mine roof and floor
- 3D panels - with the polystyrene core removed - used to construct seal across the mine entry
- Additional formwork of customer preference can be used – cribs, props, vented or unvented sheet metal
- Coated with gunite or shotcrete to form a monolithic, airtight structure (>4,500psi strength)

STOPPINGS & BULKHEADS

- Panels provide multiple design options:
 - Ventilation control stoppings
 - Entry sealing
 - Portal sealing
 - Water and/or slurry containment bulkheads

