



CASE STUDY

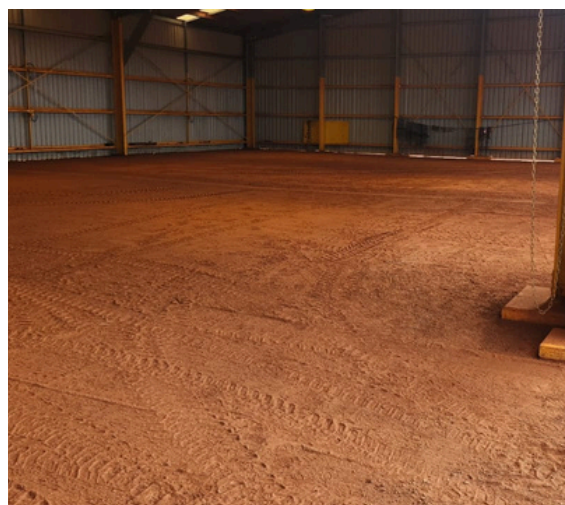


Rio Tinto | Hope Downs 4 Rio Tinto Mine Site (Pilbara) | 1,640m²

A warehouse required a sealed floor to minimize dust. Traditional options, like reinforced concrete (250mm thick) and asphalt, were cost-prohibitive due to high material and mobilization costs. Concrete prices could exceed \$1,000/m³, while asphalt struggled with wear from wheel screwing. The Rombus system, using a 32 MPa concrete mix, was chosen to provide a durable, dust-free, and gravel-free solution. This innovative approach offered a more cost-effective and long-lasting alternative, addressing both performance and budget concerns.

SOLUTION

Rombus provided a dust-free, gravel-free wearing course that addressed the specific challenges of remote mine sites. The system minimized the need for extensive mobilization of equipment and reduced material costs, offering a practical, long-lasting solution to the floor sealing problem, while enhancing performance standards and reducing maintenance issues.



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The Rio Tinto logo, consisting of the words "Rio Tinto" in white, serif font on a red rectangular background.

OUTCOME

The Rombus overlay solution in a heavy vehicle workshop is a groundbreaking approach that delivered significant benefits:

Cost Savings: ~\$480,000

- Eliminated the need for removing and disposing of 574m³ of material, importing and constructing a sub-base, and pouring 420m³ of concrete.
- The solution required only 64m³ of concrete and 1680m² of Rombus Grid, providing a much more economical alternative.

Carbon Emissions Avoided: >127,008 kg

- This figure doesn't account for the additional emissions prevented by removing the need for major earthworks.

Recycled Plastic Utilized: 9,072 kg

- Rombus Grid is made from 100% recycled Australian polypropylene.

Reduced Downtime: ~20 days

- The warehouse floor to be operational in just 17 days, including 7 days for curing time.

