

PRODUCTION AND QUALITY PROCESS

THE AUSTRALIAN GARNET DIFFERENCE



AUSTRALIAN GARNET STANDS OUT WITH STATE-OF-THE-ART MINING, PROCESSING, TESTING AND PACKAGING OPERATIONS TO DELIVER HIGH-QUALITY GARNET.

Low soluble salts and dust: Achieved through calcite removal using slurry-pumped ore and two high-energy attrition scrubbers.

Low chlorides: Processed with low salinity water from deep aquifer bores and a large Reverse Osmosis plant with a counter-current washing circuit.

High garnet purity: Ensured with gravity-fed spirals, rare earth magnets and world-class screening to eliminate trash minerals, oversize and fines.

Exceptional quality: Maintained through an onsite laboratory and frequent sample testing to meet stringent quality thresholds and international standards.

Engineered particle size distribution: Custom screens ensure our products deliver optimum performance.

Improved handling and storage: Colour-coded straps for easy identification and heavy-duty four-panel bulk bags for superior stacking and packaging integrity.

AUSTRALIAN GARNET LUCKY BAY MINE PRODUCTION PROCESS

Ore is delivered to the Mining Unit Plant (MUP), screened, slurried and pumped to the Wet Concentrator Plant (WCP) for gravity separation and clay removal.

Clay is separated in deslime cyclones, while sand is separated into light silica sand and heavy minerals in spiral circuits. The mineral concentrate is further upgraded in up-current classifiers, producing a Heavy Mineral Concentrate (HMC) which is cleaned in attrition

scrubbers and washed with high-quality water to reduce chloride content.

Dewatered sand tailings are deposited back into the mining void, beginning the rehabilitation process. The HMC is dried, screened to remove oversize particles, cooled and separated into garnet, ilmenite, and non-magnetic concentrate.



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Dry HMC is processed through a magnet circuit, separating it into garnet, ilmenite and non-magnetic concentrate. The Lucky Bay plant includes full garnet screening and bagging to produce blast grade and waterjet grade garnet in 2 Metric Ton, 1 Metric Ton and 25kg bags.



AUSTRALIAN GARNET QUALITY CONTROL

Australian Garnet products undergo rigorous testing to meet the highest industry, safety, and quality standards.

Our onsite laboratory tests at every stage, with six sampling points during mining and wet processing to ensure HMC quality. We test each product every four hours to ensure high garnet purity, low chlorides and precise particle size distribution.

Conductivity and chlorides are tested following ISO 1112-6 and ISO 11127-7 methodologies, with additional checks for turbidity and calcite. Only products meeting our stringent standards are released for sale. Regular independent laboratory testing further ensures our data aligns with product and safety data sheets.



PURITY

Supplied from a single high quality alluvial garnet source.



PRODUCT

Engineered to deliver optimised performance outcomes, meeting international standards and specifications.



PROCESS

Advanced wet and dry processing ensures optimal performance, precise particle sizing, and stringent quality control.



PACKAGING

Premium colour coded heavy-duty packaging for safe handling and transport, and increased storage life.

AUSTRALIAN GARNET PTY LTD

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A PRODUCT BY:

