



ReSAND[®] from coarse bauxite residue

Darling Range bauxite contains significant quantities of quartz resulting in a higher proportion of coarse bauxite residue being processed. This coarse residue is almost identical to crushed rock and has a sand particle size distribution. Once neutralised and washed free of salt, this product has excellent properties for use in the construction industry. Projects at Curtin University of Technology have identified ReSand[®] as suitable for general fill, for use in embankments and also in the construction of roads. ReSand[®] has also been classed as suitable as a substitute for fine aggregate in concrete production. 5000 tonnes of ReSand[®] are being produced at a pilot facility to enable demonstration projects with particular emphasis upon road construction.

ReSOIL[™] from fine bauxite residue

Western Australian soils are deficient in fines and minerals with phosphate retention capacity. In the Peel Harvey region, the use of highly soluble phosphate fertilisers and other practices has led to excessive nutrient run-off into the estuary with resulting algal blooms. Widespread agricultural application of fine bauxite residue Alkaloam[®] (as an example of ReSoil[™]), having a high phosphate retention index, will assist with phosphate level reduction and other issues. Potted plant, field and catchment trials have been conducted and monitored by the Department of Food and Agriculture WA.



ReLIME[™] from bauxite residue

Bauxite residues typically contain solid alkalinity. This solid alkalinity is typically a combination of calcium oxide, calcium carbonate and tri calcium aluminate. This material can be separated from the process retaining a high neutralisation value and appears to have properties suitable as ReLime[™] for construction and agricultural applications. Potted plant and field trials conducted through the Department of Food and Agriculture WA are assessing the suitability of ReLime[™] as an agricultural lime.

INDUSTRY PARTNERS



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