

Tantanoola Dolomite

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Tantanoola Dolomite is found in small patches along the Limestone Coast of South Australia.



A small sample of Tantanoola Dolomite

A Sibelco subsidiary, Unimin Australia, operates the Tantanoola Quarry, which lies in an irregularly dolomitised zone adjacent to the Tartwaup Fault, five kilometres south-east of Tantanoola - a coastal village about 350 kilometres south-east of Adelaide in South Australia.

The quarry was originally opened to supply rail ballast and other construction materials, but the dolomite has been used for glass-making flux since 1961. Quarried rock is screened, crushed and blended to give a 3 mm product, with an average grade of 42% magnesium carbonate.

The pictured sample was taken from the quarry which is located just off the Princes Highway at Tantanoola (west of Mount Gambier). The quarry management gave ACKMA members a short tour of the quarry at the 2015 Conference (based at Naracoorte). The quarry produces about 45,000 tonnes per annum. Most of the rock is blasted, sorted, ground up and exported to Sydney or Melbourne for use as flux in the manufacture of plate glass.

Agricultural dolomite is also produced as a by-product.

The average proportion of $MgCO_3$ in the rock is 12%–15% but the rock is sorted and quality tested to ensure a higher grade is sent for glass-making. The bulk of the rest of the rock is $CaCO_3$, with small amounts of silica sand, iron and manganese. The latter minerals give the rock its salmon-pink colour. Similar rock from other quarries in the area has also been used for building stone.

At the quarry, photo opportunities were limited to general views and none allowed of plant or equipment (their policy to minimise industrial espionage). There are caves in the formation, with one farther west being used as a show cave (Tantanoola Cave).

In times past, Tantanoola Dolomite has been used as a decorative building stone (in conjunction with limestone) – producing buildings of a certain grandeur in the centre of Mount Gambier.



Left: The 2015 ACKMA group at the quarry entrance listening to an introductory talk after their safety induction. The rock pictured with the group is conglomerate which is found around the periphery of the quarry.

Below left and below: Two fine examples of the use of dolomite as building stone in Mount Gambier

