

## AUSTRIA

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There are only 14 underground mines are still in operation in Austria, compared with up to 40 in the past, The mining laws were changed immediately after the mine disaster in the Lassing talcum mine a few years ago, and this makes mining more difficult than it was before.

One of the most important industrial minerals is brick clay, from which bricks for construction materials are almost exclusively manufactured by Wienerberger AG. The total number of employees at Wienerberger was 11,500 in 2003.

The Mittersill underground scheelite mine in the province of Salzburg is one of the few remaining underground mines of importance in Austria. The mine has reserves (measured and probable) of some 5 Mt with an average grade of 0.45%  $WO_3$  with ore production of some 450,000 t/y. Underground exploration is still being carried out, and ownership has changed from the German Metallgesellschaft towards a private Swiss owner. The mine has performed very well over the past few years in spite of difficult markets.

The last two graphite underground mines, near Trieben and Kaisersberg, both located in the Province of Styria were closed down recently because of uneconomic conditions. This was due partly to unfavourable geology, dwindling ore reserves and low grades.

Iron ore - namely siderite - is mined in a single open-pit operation at - Erzberg in the province of Styria. This nationalised mining operation is intended to be sold to the steel company Voest-Alpine. This means that most of the remaining formerly nationalised mining operations exploiting iron and coal, copper (closed 1977) and lead-zinc (closed 1989) will then be in private ownership.

Magnesite is mined underground at the Breitenau mine in the province of Styria owned by Radex Heraklith Industries (RHI). The other magnesite mines of RHI were Trieben-Hohentauern and Veitsch (now closed) and Radenthein, which is still in operation for other purposes. Only the Breitenau mine has the required quality of magnesite for refractory products.

Most gypsum is mined by open-pit methods in Tragöss by the German Knauf plasterboard company. Another important gypsum mine is at Abtenau in the province of Salzburg, operated by Moldan Co.

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**Mineral production in 2003**

<b>Commodity</b>	<b>Output (t/y)</b>
Coal (Lignite)	1,152,389
Iron ore (Siderite)	2,118,737
Iron mica	8,050
Tungsten ore (Scheelite)	450,795
Gypsum	889,727
Anhydrite	113,823
Graphite	5,428
Talcum	185,057
Kaolin	100,331
Magnesite	766,625
Clay minerals	1,667,079
Diabase (Basaltic rocks)	4,668,690
Dolomite	5,468,300
Quartz sand	943,779
Quartz gravel	6,063,528
Quartz and Quartzite	282,937
Amphibolites	264,357
Marl	996,127
Limestone	24,515,587
Gneiss	25,946
Granite	215,253
Salt brine (m <sup>3</sup> )	3,422,209
Rocksalt	1,610
Crude oil	1,014,716
Natural gas (1,000 m <sup>3</sup> )	2,069,675

Source: Ministry for Labour and Economy