

**WAC 296-17A-1802 Classification 1802.**

**1802-00 Aluminum smelting**

Applies to establishments engaged in the primary smelting of aluminum from alumina using an electrolytic reduction process. This classification includes the alloying and casting of sheet ingots, T-ingots, rolling ingots, notched ingots, sows, pigs, extrusion logs, extrusion billets and other primary production shapes when performed by a primary producer subject to this classification. Aluminum is produced from alumina. Alumina is extracted from bauxite which is an ore found in the earth's crust. Bauxite contains approximately 50% aluminum oxide (alumina) together with iron oxide, silica, and titanium oxide. The aluminum smelting process is two-fold; first, pure aluminum oxide is produced, then the aluminum is decomposed from the oxygen by an electrolytic treatment. The process is complex, labor intensive and power intensive. The use of an electric current causes pure aluminum to go to the cathode (part of the smelting structure) and accumulates as a layer floating on the molten salt in a large vat. This aluminum has a purity of 99.99% and is removed from time to time and cast into suitable shapes from molds.

This classification excludes secondary processors who do not reduce aluminum from alumina, but whose principle business is casting, rolling, extruding, foiling or recycling aluminum alloys from molten aluminum, primary production shapes or used scrap and dross which are to be reported separately in the applicable classification; ore reduction which is to be reported separately in classification 1701; and open pit or underground mining operations which are to be reported separately in the classification applicable to the mining being performed.

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