

CORUNDUM AND EMERY.

Corundum, which is practically pure alumina, is, next to diamond, the hardest mineral found. It has a hardness of 9 on Mohs' scale.

It occurs in a rock matrix from which it must be separated by crushing and concentration, after which it is ground and sized according to the demands of the markets, great care being taken to obtain uniform grading as regards the size of the grains.

Owing to its hardness and to the fact that it is not brittle it is admirably suited for use as an abrasive. It is employed for grinding and polishing both in the form of powder and wheels.

In the making of wheels the grains of corundum are mixed with clay and fluxes and moulded into shape, after which the wheels are "fired" at such a temperature as to establish a strong bond between the particles.

Emery is an impure corundum. It is almost black in colour and contains magnetite and hematite intimately mixed.¹

Its uses are the same as pure corundum but its abrasive power is very much less.

The prices as reported by Canadian users vary from 5½ to 12 cents per pound for corundum, and from 2½ to 7 cents per pound for emery, the prices depending largely upon the quantities purchased.

Amount of corundum used in the manufacturing industries, as reported by the consumers:—

Location	No. of firms reporting consumption	Domestic	Imported
		Tons	Tons
Maritime Provinces.....	1	$\frac{1}{20}$	—
Quebec.....	2	$1\frac{2}{20}$	—
Ontario.....	17	$141\frac{13}{20}$	3
Prairie Provinces.....	2	$\frac{5}{20}$	—
British Columbia.....	—	—	—
Canada (Total).....	22	$143\frac{2}{20}$	3

¹ J. D. Dana, "System of Mineralogy."