

Dresserite

BaAl₂(CO₃)₂(OH)₄•H₂O

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Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. As tapering acicular crystals, bladed on {010} and elongated along [001]; typically in divergent spherical and hemispherical aggregates, to 3 mm.

Physical Properties: Hardness = 2.5–3 D(meas.) = 2.96(2) D(calc.) = 3.06

Optical Properties: Transparent. *Color:* White. *Streak:* White. *Luster:* Vitreous to silky. *Optical Class:* Biaxial (-). *Orientation:* $X = a$; $Y = b$; $Z = c$. $\alpha = 1.518$ $\beta = \text{n.d.}$
 $\gamma = 1.601(4)$ $2V(\text{meas.}) = 30^\circ\text{--}40^\circ$

Cell Data: *Space Group:* [*Pbnm*] (by analogy with dundasite). $a = 9.27$ $b = 16.8$
 $c = 5.63$ $Z = 2$

X-ray Powder Pattern: Francon quarry, Canada.
8.09 (10), 6.23 (6), 3.66 (5), 2.73 (4), 4.68 (3), 3.17 (3), 2.667 (3)

Chemistry:	(1)	(2)
CO ₂	22.2	22.15
Al ₂ O ₃	25.6	25.66
SrO	0.8	
BaO	36.6	38.59
H ₂ O	15.3	13.60
Total	100.5	100.00

(1) Francon quarry, Canada; corresponds to Ba_{0.99}Al_{2.03}(CO₃)_{2.03}(OH)_{4.01}•1.90H₂O.

(2) BaAl₂(CO₃)₂(OH)₄•H₂O.

Occurrence: In vugs in an alkalic sill in limestone.

Association: Weloganite, dawsonite, quartz, plagioclase.

Distribution: From the Francon quarry, Montreal Island, Montreal, Quebec, Canada.

Name: Honors John Alexander Dresser (1866–1954), Canadian geologist who contributed to knowledge of the Monteregian Hills.

Type Material: Canadian Museum of Nature, Ottawa, Canada.

References: (1) Jambor, J.L., D.G. Fong, and A.P. Sabina (1969) Dresserite, the new barium analogue of dundasite. *Can. Mineral.*, 10, 84–89. (2) (1969) *Amer. Mineral.*, 55, 1447 (abs. ref. 1).