

# Admontite

# MgB<sub>6</sub>O<sub>10</sub>·7H<sub>2</sub>O

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**Crystal Data:** Monoclinic. *Point Group:* 2/*m*. Crystals are poorly developed or corroded, to about 1 mm, elongated along [001], flattened parallel to {100}.

**Physical Properties:** *Fracture:* Conchoidal. Hardness = 2–3 D(meas.) = 1.82  
D(calc.) = 1.831 Slowly decomposed in H<sub>2</sub>O.

**Optical Properties:** Transparent to translucent. *Color:* Colorless. *Luster:* Vitreous.  
*Optical Class:* Biaxial (-). *Orientation:* Y = b; X ∧ c ≈ 45°. *Dispersion:* r < v. α = 1.442(2)  
β = [1.500] γ = 1.504(2) 2V(meas.) = ~30°

**Cell Data:** *Space Group:* P2<sub>1</sub>/c. a = 12.68(2) b = 10.07(2) c = 11.32(2)  
β = 109.68(10)° Z = 4

**X-ray Powder Pattern:** Schildmauer, Austria.  
7.60 (10vb), 12.08 (9), 2.68 (9), 3.93 (8), 5.29 (7), 3.09 (6), 5.72 (4)

Chemistry:	(1)	(2)
B <sub>2</sub> O <sub>3</sub>	[54.50]	55.66
MgO	10.20	10.74
H <sub>2</sub> O	35.30	33.60
Total	[100.00]	100.00

(1) Schildmauer, Austria; B<sub>2</sub>O<sub>3</sub> by difference, H<sub>2</sub>O by thermogravimetry. (2) MgB<sub>6</sub>O<sub>10</sub>·7H<sub>2</sub>O.

**Occurrence:** In a gypsum deposit.

**Association:** Gypsum, anhydrite, hexahydrite, löweite, eugsterite, pyrite, quartz.

**Distribution:** From Schildmauer, near Admont, Styria, Austria.

**Name:** For Admont, Austria, near the original locality.

**Type Material:** n.d.

**References:** (1) Walenta, K. (1979) Admontit, ein neues Boratmineral aus der Gipslagerstätte Schildmauer bei Admont in der Steiermark (Österreich). *Tschermaks Mineral. Petrog. Mitt.*, 26, 69–77 (in German with English abs.). (2) (1980) *Amer. Mineral.*, 65, 205 (abs. ref. 1). (3) Dal Negro, A., L. Ungaretti, and R. Basso (1976) The crystal structure of synthetic hydrated borates: (II) MgO·3B<sub>2</sub>O<sub>3</sub>·7H<sub>2</sub>O. *Crystal Structure Communications*, 5(3), 433–436. (4) Walenta, K. (1982) Zum Chemismus von Admontit und Machatschkiit. *Schweiz. Mineral. Petrog. Mitt.*, 62, 177–183 (in German).