DIS-MIN-US-NC-Beryl

Beryl crystals from Adams Hiddenite and Emerald Mine (Alexander prospect; Abernathy prospect; Hiddenite Mine), Alexander County, North Carolina.

## Physical Properties of Beryl

[Lustre:](http://www.mindat.org/glossary/lustre) Vitreous, Sub-Vitreous, Waxy, Greasy

Color: Colorless, green, blue, yellow, white, pink, etc.

Streak: White

Hardness (Mohs): 7½ - 8

Tenacity: Brittle

Cleavage: Imperfect/Fair {0001}

Fracture: Conchoidal

Density: 2.63 - 2.92 g/cm3 (Measured)

## Crystallography of Beryl

Crystal System:

Hexagonal Class (H-M): 6/*mmm (*6/*m* 2/*m* 2/*m)* - Dihexagonal Dipyramidal

Space Group: *P*6/*mcc*

Cell Parameters: a = 9.21Å, c = 9.19Å

Ratio: a:c = 1 : 0.998

Unit Cell Volume: V 675.10 Å³ (Calculated from Unit Cell)

Z: 2

## Classification of Beryl

[IMA status:](http://www.mindat.org/glossary/IMA_status)

Approved, 'Grandfathered' (first described prior to 1959)

[Strunz 8th ed.:](http://www.mindat.org/strunz8.php)

8/E.12-10

[Nickel-Strunz 10th (pending) ed.:](http://www.mindat.org/strunz.php)

9.CJ.05  
  
9 : SILICATES (Germanates)  
C : Cyclosilicates  
J : [Si6O18]12- 6-membered single rings (sechser-Einfachringe), without insular complex anions

[Dana 8th ed.:](http://www.mindat.org/dana.php)

61.1.1.1  
  
61 : CYCLOSILICATES Six-Membered Rings  
1 : Six-Membered Rings with [Si6O18] rings; possible (OH) and Al substitution

[Hey's CIM Ref.:](http://www.mindat.org/cim.php)

16.6.1  
  
16 : Silicates Containing Aluminum and other Metals  
6 : Aluminosilicates of Be