Lapis Lazuli comes from the Persian word lazward

Technical description

**Lapis Lazuli Chemical composition:** Lapis lazuli is a rock composed mainly of the following minerals:

- Lazurite: \((\text{Na, Ca})_8(\text{AlSiO}_4)_6(\text{SO}_4, \text{S, Cl})_2\)
- Haunyrite: \((\text{Na, Ca})_{4-8}(\text{AlSiO}_4)_6(\text{SO}_4)_{1-2}\)
- Sodalite: \(\text{Na}_8(\text{AlSiO}_4)_6\text{Cl}_2\)
- Noselite: \(\text{Na}_8(\text{AlSiO}_4)_6\text{SO}_4\)
- Calcite: \(\text{CaCO}_3\)
- Pyrite: \(\text{FeS}_2\)

**Habit:** compact massive

**Index of refraction:** approximately 1.5

**Pleochroism:** none (isotropic)

**Specific Gravity:** generally 2.7 to 2.9, higher with increasing pyrite content

**Hardness:** 5.0 to 5.5

**Color:** deep blue, purplish-blue, greenish blue

**Luster:** dull

**Transparency:** translucent

**Cleavage:** none

**Fracture:** uneven

**Streak:** light blue

JCH Provides a photomicrograph of Pyrite and other inclusions in Lapis
JCH Provides a photomicrograph of calcite and other inclusions in Lapis Lazuli

http://www.waterfountains.com/lapislazuli.htm
Location of the traditional Lapis Mines in Afghanistan

Mining Lapis at Sar-e-Sang

http://www.gemstore.20m.com/photo.html
Grades of Lapis Lazuli

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>Lapis Lazuli</td>
<td>Best Grade Called Maden-e-Char</td>
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<tr>
<td></td>
<td>Nearly clear of inclusions</td>
</tr>
<tr>
<td>Best Grade (Maden-e-Char)</td>
<td>with Royal Blue Color</td>
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<tr>
<td></td>
<td>Nearly clear of inclusions</td>
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<tr>
<td>Lapis Better Grade (Jindak)</td>
<td>[note pyrite inclusions]</td>
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<td>---------------------------</td>
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</tr>
<tr>
<td>Lapis other grade (Maden-e-Aqwal)</td>
<td>Second best after Maden-e-Char</td>
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Random Examples
Huge block of poor quality
http://www.celestinestonetile.com/products/Lapis%20Lazuli.jpg
Lapis with pyrite inclusions