**Celestine (Celestite) Specification**

**Product Name: Celestine (Celestite)
Chemical Formula: SrSO₄
Origin: Iran (Supplied from Dubai)
Supplier: ATDM**

**1. Chemical Composition**

| **Component** | **Chemical Formula** | **Percentage (%)** |
| --- | --- | --- |
| **Strontium Sulfate** | **SrSO₄** | **90 – 98%** |
| **Barium Sulfate** | **BaSO₄** | **1 – 5%** |
| **Calcium Sulfate** | **CaSO₄** | **1 – 3%** |
| **Silica (Quartz, SiO₂)** | **SiO₂** | **≤ 1%** |
| **Iron Oxide** | **Fe₂O₃** | **≤ 0.5%** |
| **Moisture Content** | **H₂O** | **≤ 0.5%** |

**2. Physical Properties**

| **Property** | **Value** |
| --- | --- |
| **Color** | **White, Blue, Gray, or Transparent** |
| **Density** | **3.9 – 4.0 g/cm³** |
| **Hardness (Mohs Scale)** | **3.0 – 3.5** |
| **Crystal System** | **Orthorhombic** |
| **Luster** | **Vitreous to Pearly** |
| **Solubility in Water** | **Slightly Soluble** |
| **Melting Point** | **1,600°C** |
| **pH** | **Neutral** |

**3. Particle Size Distribution**

| **Mesh Size** | **Percentage (%)** |
| --- | --- |
| **0 – 10 mm** | **80 – 90%** |
| **10 – 50 mm** | **10 – 15%** |
| **50+ mm** | **5 – 10%** |
|  |  |