

# SPINEL

The Black Prince's Ruby. The Timur Ruby. For centuries, spinel, the great imposter, masqueraded as ruby in Europe's crown jewels.



## ABOUT SPINEL



Until recently, spinel was an underappreciated gem with little consumer recognition. Increasing demand for ruby alternatives rekindled appreciation for spinel's rich red color and history.

In ancient times, southeast Asia's mines yielded exceptional large spinel crystals, which became the treasured property of kings and emperors, often passing through many hands as spoils of war.

## BIRTHSTONES & ANNIVERSARIES

Spinel was recently added as an August birthstone, sharing this month with peridot and sardonyx.

It has long been mistaken for ruby by emperors and monarchs. Many of the famous "rubies" of history were actually spinels.

## TREATMENTS

There are a number of processes used to alter the color, apparent clarity, or improve the durability of gems.

## SYNTHETICS

Some gemstones have synthetic counterparts that have essentially the same chemical, physical, and optical properties, but are grown by man in a laboratory.

## IMITATIONS

Any gem can be imitated—sometimes by manmade materials or by natural materials chosen by man to impersonate a particular gem.



## WHY WE LOVE THIS GEMSTONE

### STUNNING COLOR

Singly refractive and often very transparent, red spinel rivals ruby's color but it costs much less.

### AMAZING CHROMIUM

Red spinel is colored by chromium, the same trace element that colors ruby and emerald.

### BIRTH OF GEMOLOGY

Distinguishing spinel from ruby gave birth to the science of gemology.

## NAT THWE

Spinel crystals are so perfect, in Burma they are said to be nat thwe or "polished by the spirits."

## BLACK PRINCE

The famous 14th century Black Prince's Ruby in the British Imperial Crown is actually a red spinel.

1783

Mineralogist Jean Baptiste Louis Rome de Lisle identifies spinel as a different mineral than ruby.

## FACTS

**MINERAL:** Spinel

**CHEMISTRY:**  $MgAl_2O_4$

**COLOR:** red, orange, pink, purple, blue, black

**REFRACTIVE INDEX:** 1.718

**SPECIFIC GRAVITY:** 3.60

**MOHS HARDNESS:** 8

**BIREFRINGENCE:** None