

# ZIRCON

Zircon is a colorful gem with high refraction and fire that's unfairly confused with cubic zirconia.



## ABOUT ZIRCON



Colorless zircon is known for its brilliance and flashes of multicolored light, called fire. These zircon properties are close enough to the properties of diamond to account for centuries of confusion between the two gems.

Zircon occurs in an array of colors. Its varied palette of yellow, green, red, reddish brown, and blue hues makes it a favorite among collectors as well as informed consumers.

## BIRTHSTONES & ANNIVERSARIES

Turquoise is the traditional birthstone for the month of December and the gem of the 11th anniversary.

## 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.

## 4.4 BILLION

Zircon found in Australia is the oldest mineral on earth.

## METAMICTIZATION

Zircon sometimes contains traces of uranium, irradiating itself and changing its properties.

## MATARA

Colorless zircon is called "Matara" zircon after a city in Sri Lanka near where it is mined.

## FACTS

**MINERAL:** Zircon

**CHEMISTRY:**  $ZrSiO_4$

**COLOR:** Blue, red, yellow, orange, brown, green

**REFRACTIVE INDEX:**

High: 1.925 to 1.984 (+/- 0.040)  
Medium: 1.875 to 1.905 (+/- 0.030)  
Low: 1.810 to 1.815 (+/- 0.030)

**SPECIFIC GRAVITY:** 3.90 to 4.73

**MOHS HARDNESS:** 6 to 7.5 (low to high)

**BIREFRINGENCE:** 0.000 to 0.059 (low to high)



## WHY WE LOVE THIS GEMSTONE

### GEOLOGICAL CLOCK

With radioactive trace elements that tick off time, zircon is a geological clock that tells us about the early earth.

### BRILLIANCE AND FIRE

Zircon has very high luster, refractive indices, and dispersion, giving it lots of brilliance and rainbow flashes of fire.

### DOUBLE-DOUBLE

Zircon's pronounced double refraction means you can see twice as many facets and twice as much fire.