

BIRTHSTONES ~ ZIRCON (*December*)

Zircon - The alternate birthstone for December is the zircon. Its name is probably derived from the Arabic words "zar" and "gun", meaning "gold" and "color". The gemstone is found in a wide range of colors, and possess great brilliance, fire and clarity. Zircon, in its unchanged natural form appears colorless to pale yellow, or green. These colors are caused by minute quantities of thorium and uranium that replaces zircon in the crystal structure. But over the vast spans of geologic time, other forces work within the zirconium silicate crystals. The uranium and thorium inclusions emit radiation that alters the original crystal structure. A glass-like material is formed, with colors of red to brown, orange and yellow. The mineral zircon, known as zirconium silicate, is commonly found as a minor constituent in igneous rock such as granites and some kinds of metamorphic rock. Gem quality zircon stones are usually rare. These gemstones are formed mainly in pegmatites (coarse-grained igneous rock) and in fissures. But due to weathering of the gem-bearing rocks, most zircons are found in alluvial and beach deposits. A new blue color for zircon, called "starlight blue," was created by heating golden brown or yellow zircon in the 1920s. The most prized zircon is the red gemstone, which is rare. The pure intense blue and sky blue varieties are also highly valued, while the colorless, orange, brown and yellow stones are less expensive. Many zircons on the market are heat treated, and sold as blue, golden brown or colorless stones. Colorless zircons are the best imitators of diamonds, in appearance only, with a brilliant fire that is almost as dazzling as the real thing. However, the resemblance is superficial. Zircon is a brittle stone, easily broken with a well-placed knock, due to internal stresses in the crystal caused by radiation damage and heat treatment. But despite its frail disposition, the stone is still highly valued because of its stunning beauty.

