

What is dispersion?

Everyday sunlight, which you view as white light is actually made up of all the spectral hues: red, orange, yellow, green, blue, and violet. Dispersion is the breaking of that white light into its components. Dispersion is different from one gem to another- different gems break light into different components. This is one of the reasons why it is easy to spot a CZ acting as a diamond imposter. Richly colored gems tend to mask dispersion.

Dispersion, also called fire, is especially high in diamonds. In fact, as I write this I am sitting on a plane returning from a buying trip. It is a particularly sunny day, and light is hitting my diamond band, and hundreds of balls of spectral light (prisms of color) are reflected all around the window seat. I have often noticed this as I sit in my car waiting for my kids on a sunny afternoon. Wearing diamonds is fun!

Dispersion can be measured by a refractometer and special devices, but is not part of routine gem testing in my (or most) gem labs.