

FR-IntSphere: Total & Diffuse Spectral Reflectance Measurements

FR-IntSphere kit is an accessory for FR-pRo tools for:

Total, Diffuse, Specular Reflectance/Transmittance measurements. The kit consist of an integrating sphere of 50mm diameter, the appropriate optical fibers and holders. It is fully controlled through FR-Monitor software for the calculation of all parameters (reflectance, color, etc.).

Applications

- Photovoltaics
- Diffuse materials
- Textiles
- Automotive paints
- Gemology
- General Lighting

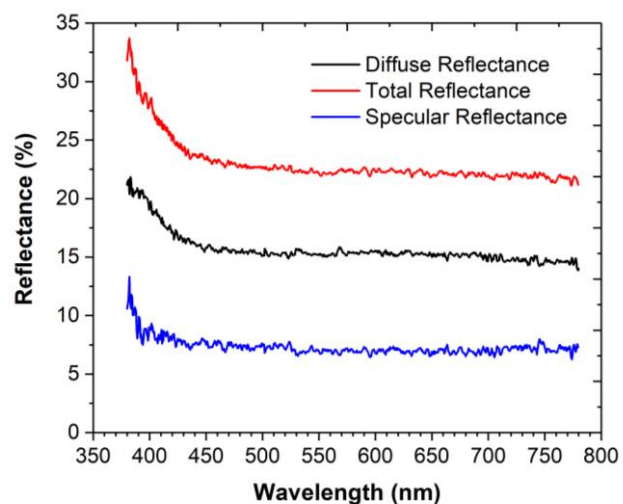
Features

- Total/Diffuse/Specular Reflectance/Transmittance
- Haze
- Irradiance
- Color properties ($L^*a^*b^*$)
- Wide spectral range
- Ideal for manufacturing applications
- Wide range of light sources, optical elements, & integrating sphere configurations/dimensions.



FR-IntSphere kit along with a FR-pRo tool consist of a full solution for reflectance measurements, without any need of additional components. The integrating sphere is compact, easy to operate, made of a highly reflective, Lambertian surface (PTFE), with a sample port diameter of 10mm.

The entrance and the exit ports are at **8 degrees** from normal incident to block the specular reflection of the sample by using a light trap and measure the **Diffused reflectance**. By replacing the light trap with a gloss trap (same material as the internal of the sphere), the **Total reflectance** is measured.



Total, Diffuse and Specular Reflectance measurements of a painted aluminum sample, as they were measured using an FR-pRo tool equipped with an integrating sphere