

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 consists of an integrating sphere of 50mm diameter, the appropriate optical fibers and holders. It is fully controlled through FR-Monitor software for the calculation and analysis of all parameters (reflectance, color, etc.).

Applications

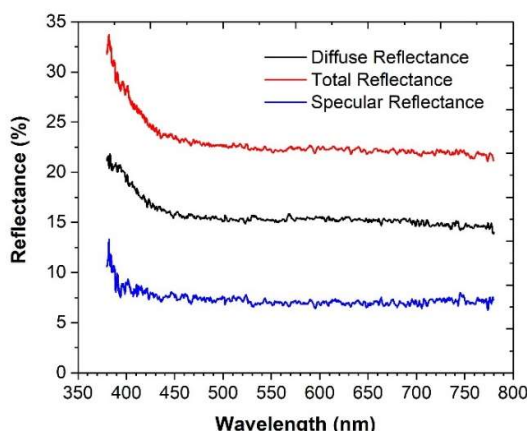
- Photovoltaics
- Diffuse materials
- Textiles
- Automotive paints
- Gemology
- General Lighting

Features

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



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

*Specifications are subject to change without any notice.