

Reference Tiles

For diffuse reflection measurements, Avantes offers the WS-2 reference tile. For specular reflection measurements, the RS-2 is available.

The WS-2 reference tile is made out of a white diffuse PTFE based material, which is considered the highest grade reference material for diffuse reflectance. It is mostly used in colorimetric application where a reference signal has to be obtained during a reflection measurement.

The PTFE material is high purity and processed using exacting standards to an amorphous structure, so the tile reflects light from 350-1800 nm at circa 98% and from 250-2500 nm at more than 92%. The material offers long term stability, even in UV applications. The plastic is hydrophobic and chemically inert, so it is cleanable.

For gemology applications, the WS-2 is used in combination with a reflection integrating sphere. The gemstone is put on the middle of the tile with the integrating sphere over it.

The special WS-2-GEM is designed to facilitate holding and cooling a gemstone with liquid nitrogen, as it features a cavity and hole in the middle of the tile.

The WS-2-CAL is a NIST traceable calibrated white reference tile which includes an electronic calibration file covering 250-2500 nm.

The RS-2 is a mirror tile which can be used as a reference standard for specular reflection measurements.

The RS-2-CAL is a calibrated mirror tile which includes a NIST traceable calibration file, which is created using an 8° absolute specular reflectance measurement over the wavelength range from 250-2500 nm.

We also have black and grey reference tiles available. These tiles are perfect for reflectance measurements. For more information on these tiles, please look at the ordering information on the next page.

As with most Avantes products, these accessories can be delivered in a custom design. Contact us for more information.

WS-2 and WS-2-GEM



RS-2

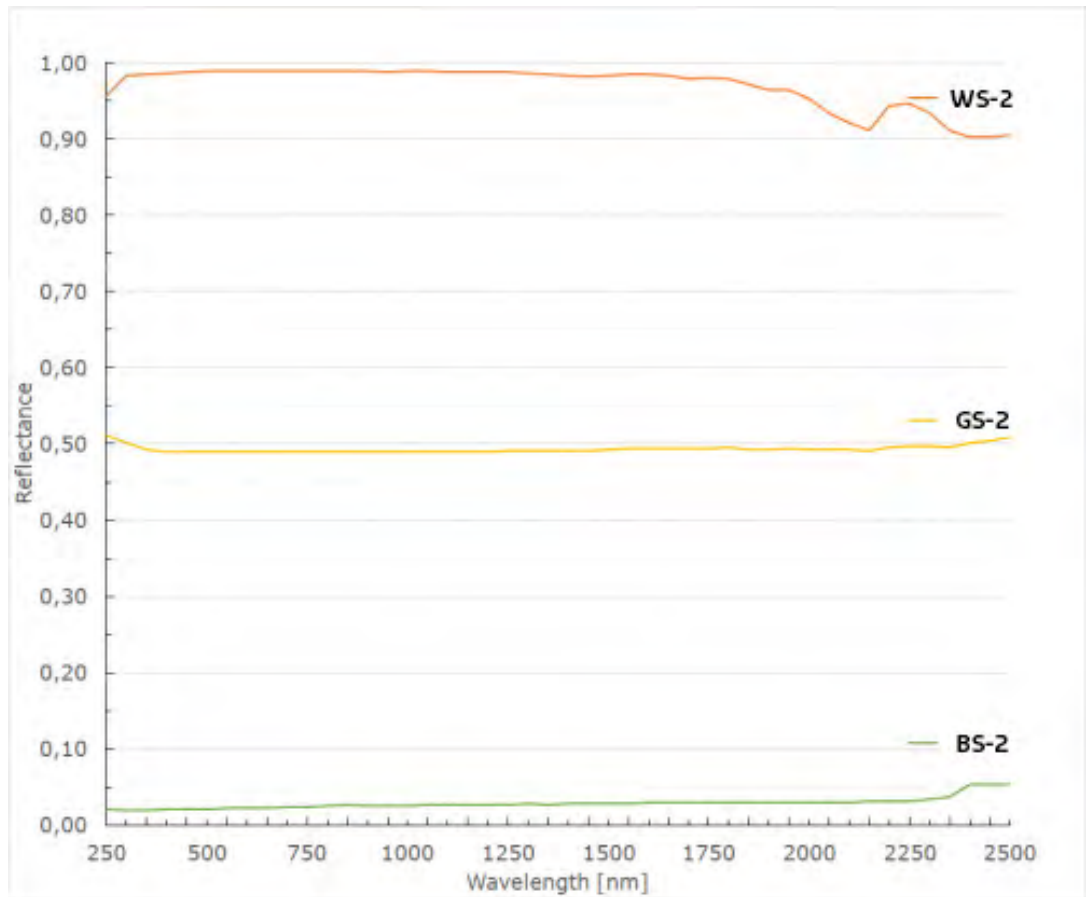


Technical Data

	WS-2	RS-2
Material	Diffuse PTFE material	BK7 with Al+MgF ₂ coating
Max. temperature	280°C	80°C
Dimensions tile	32 mm diameter / 10 mm thick	32 mm diameter / 1 mm thick
Housing	38 mm diameter, black PVC, cover red anodized	

For the latest information,
go to www.avantes.com

Reflectance Curves Reference Tiles



Ordering Information

WS-2	• White reference tile
WS-2-GEM	• White reference tile with cone, specially for Gemstone measurement
WS-2-CAL	• NIST traceable calibrated white reference tile with 8° hemispherical calibration, 250-2500nm
RS-2	• Specular Reflectance standard with Al+MgF ₂ , 250-2500 nm
RS-2-CAL	• NIST traceable calibrated Specular Reflectance standard with Al+MgF ₂ , 250-2500 nm
BS-2	• Black reference tile for reflectance measurements. Diffuse, 2%
GS-2	• Grey reference tile for reflectance measurements. Diffuse 50%