

Absorption Spectrum of AR Coating Glass

INTRODUCTION

Antireflection coating is used in eye glasses, cameras, and displays to prevent reflection. It is also used in solar cells to increase the transmittance. By using the system consisting of an U-4100 spectrophotometer (solid) with 5° absolute reflectance accessory, the transmittance and reflectance of an antireflection coating glass were measured and the absorbance was calculated based on the results. By using this system, the transmittance and reflectance of the same spot can be measured without moving the sample.

SAMPLE

Sample : Antireflection coating glass

INSTRUMENT CONDITIONS

Instrument : U-4100 spectrophotometer (solid sample measurement system)

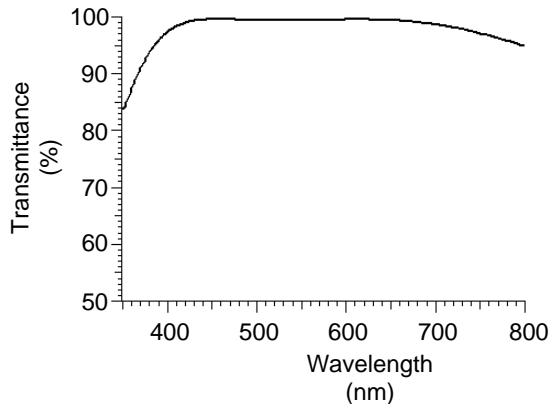
[UV/VIS]

Measurement wavelength range : 350 – 800 nm
 Scan speed : 60 nm/min
 Slit : 8 nm

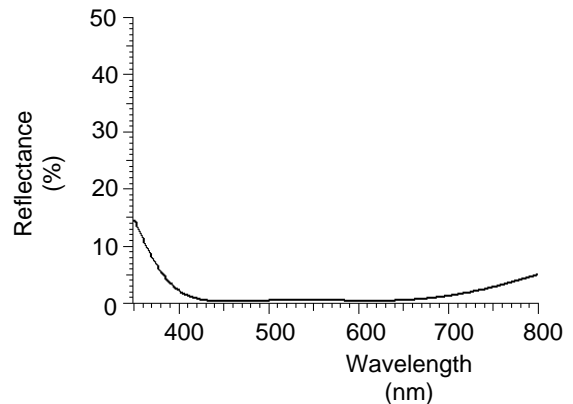
Sample interval : 2 nm

OTHER ESSENTIAL ITEMS

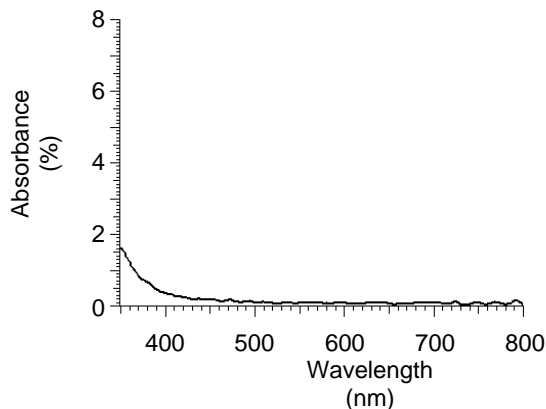
5° absolute specular reflectance accessory
 (P/N : 134-0102)



Transmittance of Antireflection Coating Glass



Reflectance of Antireflection Coating Glass



Absorbance of Antireflection Coating Glass

Calculation of absorbance

$$\text{Absorbance (\%)} = 100 - [\text{Transmittance (\%)} + \text{Reflectance (\%)}]$$

KEY WORDS

Material-Processing Material Related,
 Other Material-Processing Material Related, Antireflection Coating, Display,
 Solar Cell, Transmittance, Reflectance, Absorbance, Spectrophotometer,
 U-4100

Spectrophotometer (UV)

Sheet No. UV090014-01