

General Description Gold Coated Silicon Wafers

The gold coated silicon wafers are useful for thin film research, AFM / SPM, nanotechnology and biotechnology applications. The silicon wafers are coated with 50nm of pure gold over a 5nm adhesion layer of Ti. Both Ti and Au are deposited in a dedicated high vacuum deposition system with electron beam evaporation sources. The gold coating is not atomically flat; there are height differences in the nm range. The maximum use temperature is around 175°C; higher temperatures could result in delamination of the gold film. The gold coated wafers are individually packed in 2" wafer carrier trays for protection.

Specifications of the gold coated $\varnothing 2''/51\text{mm}$ silicon wafers:

Coating film	: 50nm Au, 99.999% purity
Adhesion film	: 5nm Ti, 99.98% purity
Surface roughness	: several nm
Si substrate Orientation:	<100>
Type	: P (Boron) with one primary flat
Resistantance	: 1-30 Ohm/cm
Thickness	: 275 μm (+/- 20 μm)
Diameter	: 51mm
TTV	: =< 20 μm
Primary Flat	: 15.9 +/- 1.65mm