

# TECHNOLOGIES TRANSFERRED FROM ISRO

TT / 02 / LEOS

## ANTIREFLECTION COATING ON GERMANIUM OPTICS FOR MID IR REGION

(Technology Transferred to M/s GOAL, Pondicherry)

Many advanced optical systems make use of Germanium optics in the near, mid and far infrared regions due to its excellent mechanical properties, easily amenable to figuring and polishing to the desired accuracy and also due to its excellent transmission. However the high refractive index of the material also leads to high reflectance loss reducing the overall efficiency of the optical system. It is therefore essential to enhance the transmission and reduce the reflection loss by deposition of anti-reflection coatings. These coatings should not only be optically efficient but also should be durable to withstand adverse environments such as high and low temperature cyclings, high humidity and thermo vacuum environments. These coatings are highly durable and can find applications in space, defense and many industrial optical systems.

*For further details, please contact:*

Director  
Technology Transfer & Industry Cooperation (TT&IC)  
ISRO Headquarters  
"Antariksh Bhavan"  
New BEL Road  
Bangalore - 560 094



2009