

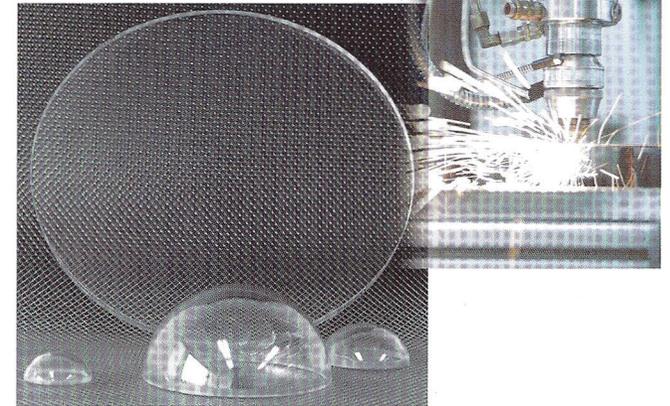
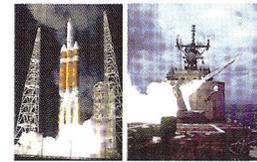
HEM SAPPHIRE PRODUCTS

HEM Sapphire is a leading material solution for today's demanding technical applications. HEM Sapphire is being used in the latest industrial applications because of the flexibility that sapphire material affords engineers in terms of sizes, optical properties, mechanical properties and the wide transmission range from the VUV to the near IR.

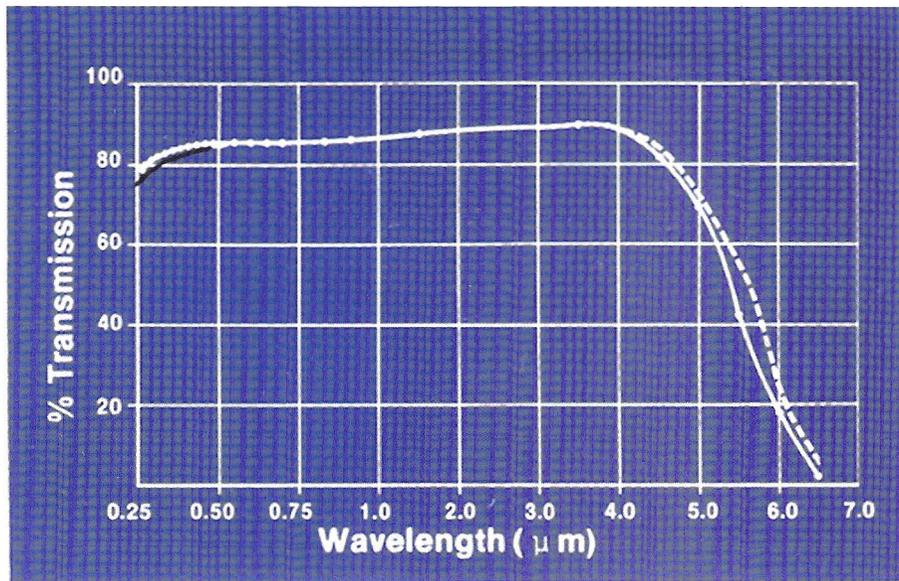
HEM SAPPHIRE PRODUCT OFFERINGS

Windows, blanks, tubes, rods and other product types offered:

- Part thickness ranging from 0.1" to 14"
- Surface finishes offered in "as sliced", fine ground or polished finishes
- Polished surfaces from 80-50 scratch dig to Super Polished, finishes of < 5 A Ra
- Annealing treatments available
- Prototype to commercial volume capabilities



Standard HEM Sapphire Transmission



- 3 mm thickness, 5 A rms roughness (TIS)
- - 3 mm thickness, 100 A rms roughness (TIS)
- · 2.25 mm thickness, 1100 A rms roughness (TIS)

VUV HEM Sapphire Transmission

(based on measurement of 20 mm diam. x 2 mm product)

