



Typical Optical Properties Diamond

Diamond is transparent from the UV (225 nm) to the far infrared. Only minor absorption bands exist resulting from two phonon absorption between 2.5 and 6.5 μm . This makes diamond an ideal material for multispectral optical applications.

Furthermore, its large bandgap (5.45 eV) prevents thermally generated charge carriers at elevated temperatures. Therefore diamond remains transparent even at very high temperatures and radiation intensities along with its extreme thermal conductivity, hardness, wear and chemical resistance all of which are of importance for various optical applications.

