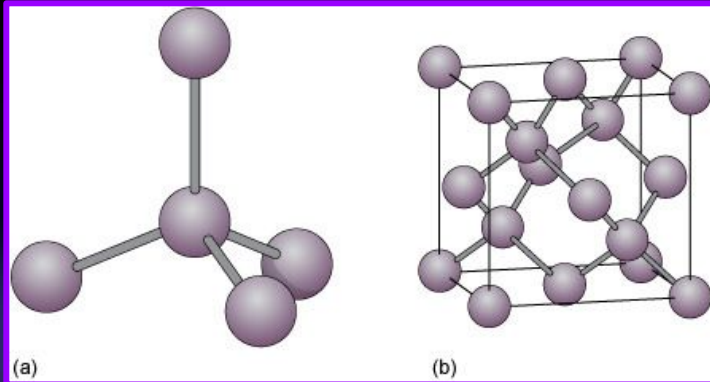


3D Printed Diamond Composite

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15-294 Materials Presentation

A Swedish company named Sandvik has created the first 3D printed diamond composite. Made of diamond powder suspended in a polymer slurry, printed using stereolithography.



The composite is extremely stiff and hard (3x steel), high thermal conductivity (> copper), low thermal expansion (~ invar), low density (~ aluminum) and excellent corrosion resistance. The diamond powder can be extracted from the slurry after printing, making the composite a sustainable practice.