# Diamond (whole atoms) 

## LEGO unit representing atoms in this structure:



This atom model requires:
4 yellow $2 \times 4$ bricks
2 yellow $2 \times 2$ bricks

This model requires:
72 yellow $2 \times 4$ bricks
36 yellow $2 \times 2$ bricks
16 black 1x1 bricks


$$
Z=0 \quad Z=1 / 4 \quad Z=1 / 2 \quad Z=3 / 4 \quad Z=1
$$



These are supports made from four $1 \times 1$ bricks.

Side view of diamond structure:


Tetrahedral bonding in diamond structure:


