

15 A solid cube is floating in equilibrium in liquid mercury. The cube is made of iron of density 7900 kg m^{-3} .

The cube floats with 42% of its volume above the surface of the mercury.

What is the density of the mercury?

- A** 3300 kg m^{-3}
- B** 4600 kg m^{-3}
- C** $14\,000 \text{ kg m}^{-3}$
- D** $19\,000 \text{ kg m}^{-3}$