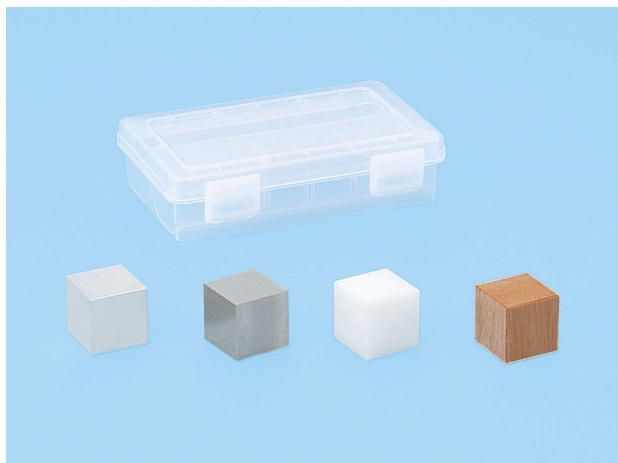


C15-5108-W0

## Set of Four Assorted Density Blocks



### [Product Description]

Set of four cubes (aluminum, steel, plastic (POM), wood) equal in volume ( $3 \text{ cm}^3$ ) and different in masses.

### [Overall Advantages to Users]

This set helps students better understand the concept of density through hands-on activities. It also helps students easily realize that the density of an object refers to the ratio of its mass to its volume.

### [Benefit]

#### [To all users]

✓ Users can tell the difference both in appearance and mass between the four types of the substances just by putting each block on their palms one after another.

#### [To teachers]

✓ Each block is individually stored in a plastic case therefore it is unlikely to get scratched.

#### [To students]

✓ Shorter time required for analysis because the known and uniform size of each block enables easy calculation of experiments results.

### [Specifications]

- Blocks:
  - Aluminum block: 1 pc, 72 g
  - Steel block: 1 pc, 210 g
  - Plastic block (POM): 1 pc, 39 g
  - Wooden block: 1 pc, 13 g
- Size: 30 x 30 x 30 mm (each)
- Accessory: Plastic storage case

### [Keywords]

- Properties of matter
- Density
- Mass
- Volume

### [Precautions]

✓ If dirty, wash the blocks with soap or neutral detergent, and then dry them well. Don't use a brush for washing because aluminum and steel blocks have rust-proofed surface coated with varnish.

✓ Handle plastic and wooden blocks carefully because they can be scratched easily due to their uncoated surfaces.

### [Example of Experiment]

- Measuring the density of a solid object:

#### [Objectives]

Students will know about:

- how the density of a substance is defined, and
- how the density of a substance is calculated using the formula:  $\text{density} = \text{mass}/\text{volume}$ .

#### [Procedure]

1. Measure the mass of each block using a precision balance.
2. Measure the dimensions of each block and calculate each volume. Or submerge the block in water in a measuring cylinder and observe the increase in the water level to directly measure the volume of the block.
3. Calculate the density of each block from its mass and volume using the above-mentioned formula.