

The property which differentiates the two kinds of charges is called **the polarity of charge**.

Note: Only rubbed area of non conducting body gets charged, and this charge does not move to other parts of the body. The charge is static on rubbed portion only.

Conductors, Insulators and Dielectrics

Those substances which allow **electricity to pass through them easily are called conductors**. They have electric charges (electrons) that are comparatively free to move inside the material.

Metals, human and animal bodies and earth are conductors.

Those substances which do **not allow electricity to pass through them easily are called insulators**.

Most of the non-metals like glass, porcelain, plastic, nylon, wood offer high resistance to the passage of electricity through them.

Insulators are also called Dielectric. Obviously, dielectric cannot conduct electricity. However, when a **electric field is applied, induced charges appear on the surface of the dielectric**. Hence we may define dielectric as the insulating material which transmits electric effects without conducting.

When we bring a charged body in contact with the earth, all the excess charge on the body disappears by causing a momentary current to pass to the ground through the connecting conductor (such as our body). This process of sharing the charges with the earth is called grounding or earthing.

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