



### IS 8783 : Part 4 : Section 1: 1995

High-Resistant (HR) Polyvinyl Chloride (PVC) insulated winding wires

**High-Resistant (HR) Polyvinyl Chloride (PVC) insulated winding wires** specifically designed for submersible motors. These wires are used to wind the motor coils, ensuring efficient operation in underwater conditions. The HR PVC insulation provides protection against moisture, abrasion, and varying water temperatures, making it ideal for submersible applications.

These winding wires to exhibit high durability, excellent insulation properties, and resistance to moisture and corrosion, as submersible motors are often exposed to harsh underwater environments. Key quality parameters include:

- **Water and moisture resistance** to prevent electrical failures.
- **High thermal stability** to handle variations in water temperature.
- **Mechanical strength and flexibility** to withstand physical stress during installation and operation.
- **Electrical insulation** to prevent short circuits and ensure safety.

IS 8783 (Part 4, Section 1): 1995 ensures that the HR PVC insulated winding wires meet stringent quality requirements to satisfy consumer expectations. The standard prescribes tests for **insulation thickness, electrical resistance, tensile strength, and heat resistance**, ensuring wires can withstand underwater conditions. It also specifies testing methods to assess the wire's insulation against moisture and its durability under thermal stress. By adhering to these guidelines, manufacturers can produce reliable, long-lasting winding wires that provide consumers with confidence in the safety and efficiency of their submersible motors.