



# SmithHeat™

## Hair/Hand Dryer Heating Elements

### COMPOSITION

SmitHeat™ Hair/ Hand dryer is a open coil or open wire type of heating element with the mica as base material and alloy wire coiled in the base.

The construction of hair/hand dryer heating element is usually dependent on the design of the blower assembly. The insulating mica is used as support for winding of wires. The insulating mica sheet is fabricated in to the desired design and more than 3 pieces of mica parts is joined together to make the support. The wire is wounded over the support in various ways to meet to required power and heat density.

This design of wire winding is very effective as in very less area; we can get high resistance and high watt density.

The alloy wire mainly used in hair/hand dryer is of nickel chromium composition as it is a poor conductor of electricity and it does not oxidize when heated.

The winding of wires are of different ways:

### Coil winding on mica support

Heating coils are made by alloy wires. The coils are made by high quality Nickel Chrome Wire with definite diameter as per requirement. Then, heating coils is wounded in the support.

This design of wire winding is very effective as in very less area; we can get high resistance and high watt density.

### Ripple wire winding on mica support

Ripple wire or Zig - Zag wire winding is mostly used in hair/hand dryer. The wire is rippled with the help of tools and wounded over mica support. The crest of the ripple depends upon the requirement of watt density and also on assembly.

Regardless of these system of manufacturing, we also manufacturer all kinds of heating elements as per customer design and specifications.

All values are attributes of the used raw materials.

The physical data contained in this table are typical values. They are obtained on test specimens under specific conditions and represent average values of a large number of tests. The results obtained on these tests specimens cannot be applied to finished parts without reservations, as behaviour is influenced by processing and shaping.