

# 示温涂料

## Temperature Indicating Coating

**Product Description** This coating is a series of products, which includes the following four products:

Sw-m-1 150 °C ~ 500 °C multi color irreversible temperature indicating coating;

Sw-m-2 400 °C ~ 700 °C multi color irreversible temperature indicating coating;

Sw-m-3 500 °C ~ 900 °C multi color irreversible temperature indicating coating;

Sw-m-4 800 °C ~ 1200 °C multi color irreversible temperature indicating coating.

It is composed of epoxy modified silicone resin as binder, mainly are coloring pigments and ceramic pigments, and supplemented by high-temperature inorganic fillers after grinding and dispersion. It has the characteristics of sensitive color change, obvious color difference, bright color and long-term high temperature resistance.

**Purpose** It can be used to measure the temperature distribution of the hot end components of engines, such as combustion chamber, turbine disk, guide vane, flame tube, afterburner diffuser, etc. it can also be used to measure the surface temperature of the components that are not suitable to be measured by hot couple, especially for the measurement of large area temperature field.

**Painting Data**

Coating thickness	20-40um, according to the design requirements
Theoretical Coverage	Dry film thickness 20-40um, 0.20-0.30kg/m <sup>2</sup>
Practical Coverage	Consider appropriate waste factors

**Surface Treatment** The painted surface of the substrate shall be fully dusted, degreased, derusted, clean and dry. The metal substrate shall be sanded, sandblasted and scrubbed with organic solvent. All surfaces shall be judged and

treated according to ISO8504; 2000 standard.

**Product Features**The surface state of the coating film depends on the coating method. It is necessary to avoid the mixing of multiple coating methods. The best appearance can be obtained by traditional air spraying or brush coating. This kind of coating can not be used as either top coat or primer. It must be directly applied on the treated metal surface. After the test, the test piece shall be naturally cooled to room temperature for interpretation under natural light source. The product must be diluted with the recommended Special diluent. If other diluents are used, the apparent state and film-forming performance of the coating will be seriously affected. Good ventilation must be ensured when the high temperature multi color irreversible temperature indicating coating is used in the enclosed space.

#### **AdditionalInformation**

The industrial standards, terms and abbreviations related to this manual can be found in North Paint & Coatings Industry Research and Design Institute,Ltd.