



PES Coating Application Operation Instructions

Coating No.: DF-1xxxPES

Coating type: PES system

Coating dilution: 380°C special diluent

Materials used: aluminum, iron and stainless steel

Spraying technology:

Workpiece treatment→ coating dispersion→ spraying→ baking→ FAQ

I. Workpiece treatment: degreasing, roughening (sand blasting/suggested: 60-100 mesh sand)

II. Coating dispersion

1. Roll and stir the coating for more than 15 minutes.
2. Spraying viscosity Iwata 2# cup 22-30 seconds.
3. Filtration before spraying (suggested: 120 mesh filter screen).

Precautions:

With different temperatures, the spraying viscosity shall be adjusted properly. When the air temperature is 25-30°C, the viscosity 28-32 seconds can be used as the reference value. When the environmental temperature is low, the spraying viscosity shall be adjusted high. When the environmental temperature is high, the spraying viscosity shall be properly adjusted low. The spraying viscosity shall depend on the actual spraying situation.

III. Spraying

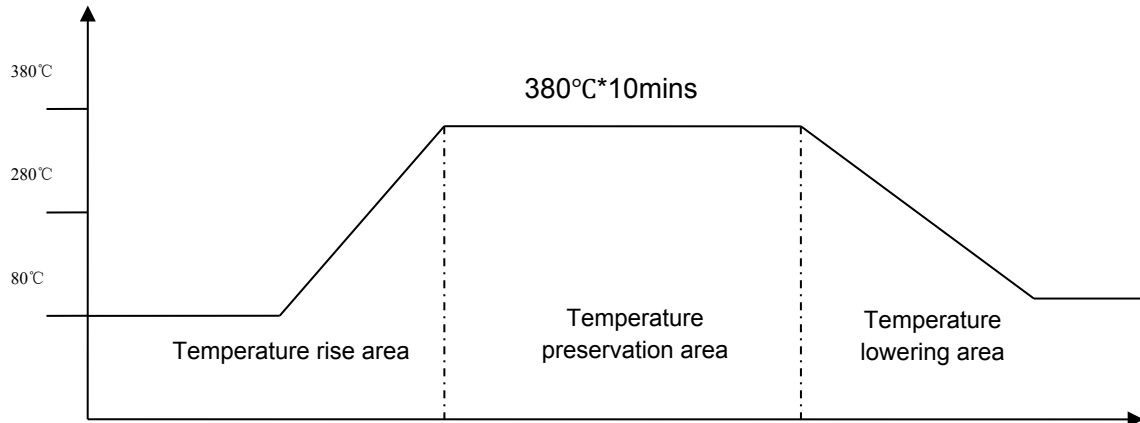
1. The workpiece shall be preheated to about 40°C before spraying.
2. The workpiece shall enter the furnace as soon as possible after spraying, and the temperature of entering the furnace is more than 80°C.
3. The spraying film thickness shall be controlled within 18-25µm.

Precautions:

The PES system is the coating with strong water absorption, and the water absorption and lacrimation phenomenon very easily occurs when the air humidity is high and the air temperature is low. Therefore, when the environmental temperature is low or the air humidity is high, the workpiece shall be preheated and the workpiece shall very quickly enter the furnace after spraying so as to prevent the coating from absorbing water and having a poor appearance.

IV. Baking

1. Required: 380°C×10 minutes
2. The temperature is excessively low, the coating appearance gloss is slightly higher, and the performance test is influenced.
3. The temperature is excessively high, the coating easily turns yellow, and the non-stick effect becomes poor.

**V. FAQ:**

1. Water is excessively fast absorbed, and the lacrimation phenomenon occurs.

Solutions: the workpiece shall be preheated to about 40°C and shall enter the furnace after spraying, and the low-temperature section of the furnace temperature is more than 80°C.

2. White spot and watermark

Solutions: ① Clean up the accumulated water and oil stains of the air compressor and air pipe.

② Pay attention to the workpiece pre-treatment, carefully store and transport the workpiece after washing, forbid hands to directly contact the workpiece, and prohibit the workpiece from being polluted by other sundries.

3. Coating cracking, sagging, bursting and bubbling

When the spraying film is too thick and the furnace temperature rise is too fast, the cracking and sagging will occur. At this time, the chain shall slow down to prolong the time of the temperature rise area or adjust the temperature of the low-temperature furnace section to 180-220°C so as to be conducive to the product leveling.