Application Guide

HS-980HT (1 part) Nano-Ceramic High Temperature Coating

The HS-980HT is a high performance, voc exempt, ambient cure and/or oven cure product. The HS-980HT coating is designed for uses where thermal migration control may be needed to help protect the surrounding environment & near by components or improve performance & protection of equipment.

**Used when radiated heat needs to be greatly reduced**

Example: 1600°F inside / 186°F radiated temperature 1” away from the outer surface.

HS-980HT High Temperature coating resin was designed for simple application and high temperature uses where radiated heat needs to be reduced and substrate protection is needed.

**Note!** Surface cleanliness is of utmost importance, free from oils and other containments.

Application on; Ferrous and Non-Ferrous Metal Alloys, (such as; “Titanium), composites, semi-ridgid and flexible plastic alloys as well as many other substrate types.

- It is always best to create a blast profile by a 120 grit aluminum oxide, garnet or equal, on all of the surfaces that will be coated, if possible.
- **(Do not use Glass or natural Sand as this will impede the adhesion of the coating to the surface).**
- **(Do not handle blasted parts with bare hands, as salts/acids will contaminate the surface and possibly cause a loss of adhesion in those areas once the part sees extreme heat).**

  - Mix contents well before applying to ensure that no solids are in the bottom of the container.
  - With clean dry air blow off any dust from the surfaces, preventing contaminating the coating.
  - **Interior coating:** (being narrow diameters that cannot be sprayed)
    - Plug all of the openings at both ends of the tubular part.
    - Remove one plug, to allow a modest amount of coating to be poured into the part.
    - Replace this plug and gently rotate the part to ensure that all surfaces are coated.
    - Now remove the plug and pour out any excess coating into a container.
    - Now hang the part so that it allows for continued draining of excess coating and ease of spraying the exterior surfaces.
  - **Exterior coating:**
    - With a HLVP or similar spray gun fitted with a fine tip (i.e. 0.08);
      - A finer spray mist is better, enabling the product to flow out easier and help control the products thickness.
    - **Now start to spray all of the hardest areas to coat first;**
      - then start to spray the remaining areas until the entire surface is coated with an approximate dry film thickness of .5 to 1 mil.
    - **It is very important not to build the coating to thick; (more is not better),
    - as “to thick” will allow the coating delaminate during thermal cycles – it must be a thin coating to work as designed.

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