DESCRIPTION

ATP coatings are advanced, water-based, non-hazardous and cost-effective metal protection systems. They are formulated to protect metals and alloys from oxidizing or contamination atmospheres at high temperatures for extended times. The coatings prevent the diffusion of gases into and out of the metals.

The water-based coatings are applied prior to heating for rolling, forging, hot extruding, annealing or other heat treatments.

ATP coatings are formulated to protect:

- Tool Steels
- Stainless Steels
- Nickel Alloys
- Carbon and low Alloys
- Zirconium Alloys
- Titanium Alloys
- Molybdenum

ATP coatings are cost effective because they retard the formation of oxide scale, reduce surface rejects, minimize secondary finishing operations, reduce the loss of valuable metal while improving product quality.

Advantages

- **Stainless Steels:**
  - minimizes formation of oxide scale
  - reduces surface defects
  - reduces secondary finishing operations
  - spalls on cooling

- **Tool Steels:**
  - controls decarburization
  - retards formation of oxide scale
  - reduces forged or rolled in scale
  - reduces secondary finishing operations
  - improves yields

- **Titanium Alloys:**
  - controls hydrogen penetration
  - provides heat distribution and metal movement
  - minimizes surface defects controls alpha case

- **Molybdenum and Zirconium Alloys:**
  - oxidation resistance
  - smoke resistance

All coatings have excellent green strength to allow the coated parts to be loaded into the furnace without damage to the unfused coating.

HOW TO USE THE COATINGS:

Mixing Instructions: For best results, the coatings should be well suspended and mixed. Coatings supplied at viscosity which can be adjusted for most coating techniques and processes. The viscosity can be adjusted with water and electrolytes.

Metal Preparation: Metal surfaces must be free of dirt, oil, grease and loose scale for best results.

How to Apply: The water based coatings can be sprayed with conventional, electrostatic or airless spray systems. May also be flow coated, dipped or brushed.

Thickness: The proper thickness depends on the metal to be processed, time and temperature. Coating thickness is most important and must be controlled.

Drying: The coatings are water based and should be dried. They can be applied to preheated metal up to temperatures of 150-200 F. They can be air dried or dried in a drier. Special formulations will allow charging into furnace while the coating is still wet. The coating will dry to a hard finish with excellent green strength. This will minimize damage to the coating prior to entering the furnace.