

# ZP-9F

## Solvent Based Developer

ZP-9F is a non-aqueous developer made of organic particles, used often in aerosol cans. It produces an opaque white coating and contrasting background when penetrants are used, for fluorescent and visible inspection processes. It is typically used for a wide variety of testing materials such as welds, castings, forgings, leak testing, pressure vessels, aircraft, marine, construction, maintenance, petroleum pipelines, power plant components, and general metalwork in automotive, off-highway equipment and farm equipment.

ZP-9F is listed on the QPL SAE AMS 2644 Qualified Product List.



### BENEFITS

- Provides excellent background contrast
- Fast drying
- Thin opaque coating masks surface blemishes

### APPLICATIONS

**Defect location:** open to surface

**Ideal for:**

- Welds
- Castings
- Forgings

**Defect examples:**

- Cracks
- Seams
- Porosity

### PROPERTIES

Density	6.5 lb/gal (780 g/L)
NPE-Free	Yes

### SPECIFICATION COMPLIANCE

- AECL
- AMS 2644
- AMS 2647
- ASME
- ASTM E1417
- ASTM E165
- Boeing PS-21202
- GE P50YP107
- MIL-STD-2132
- MIL-STD-271
- NAVSEA 250-1500-1
- QPL SAE AMS 2644

### USE RECOMMENDATIONS

NDT Method	Penetrant Testing
Form(s)	d/e
Coverage	1 aerosol can will cover approx. 65 ft <sup>2</sup> (6 m <sup>2</sup> ); 1 gal will cover approx. 800 ft <sup>2</sup> (74 m <sup>2</sup> )
Usage Temperature	40 to 125°F / 5 to 52°C
Storage Temperature	50 to 86°F / 10 to 30°C

## INSTRUCTIONS FOR USE

ZP-9F should be applied by spray only, since dipping or brushing will cause excessive solvent action on the penetrant in discontinuities. ZP-9F must be agitated during use to ensure the developer particles remain suspended during processing.

Developer bath is applied after the surface penetrant has been removed, and the part has been dried. Complete coverage of the part is essential to quality inspection. Solvent-based developers like ZP-9F should be sprayed in thin even layers, which just wet the surface. A heavy spray will cause excessive bleeding and running of indications; whereas too light a spray will result in slow indication development as well as possible loss in overall sensitivity due to limited solvent action.

## PACKAGING

Aerosol can, case of 12      01-3354-78



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