# Solvent-based Developer

**Increases indication visibility** 

Improves indication detection by creating

• Bright white, opaque coverage blocks all underlying surface color and quickly draws

• Can be used with a variety of Type 2 and

an optimal surface for penetrant indication

penetrant to the surface for stronger, clearer

Type 1 penetrants in many different situations

ZP-9F

**BENEFITS** 

formation

indications

**Application versatility** 

MAGNAFLUX

ZYGLO® ZP-9F is a non-halogenated, ready-to-use, solvent-based developer. White developing particles suspended in fast-drying solvent produce an opaque white coating for a contrasting background around penetrant indications, for both fluorescent and visible inspection processes.

### Maximum sensitivity

- Low in sulphur and halogens
- Contains no chlorinated hydrocarbons
- Suitable for use at low temperatures

### **APPLICATIONS**

## Defect location: open to surface

## Ideal for:

- Welds
- Castngs
- Forgings
- Leak testing
- Pressure vessels,
- Aircraft
- Petroleum pipelines
- Power plant components
- Automotive metalwork
- Off-highway equipment
- Farm equipment.

### Defect examples:

- Cracks
- Seams
- Porosity

### **COMPOSITION**

A blend of inert inorganic particles suspended in an isopropanol and acetone mix.

Provides good background contrast

 Reduces inspection process time by minimising post-inspection cleaning

- Wicks penetrant out of indications
- Fast drying
- Easy to apply
- Convenient, ready-to-use formula
- Very low toxicity
- Matte, opaque coating
- Easy to clean

**Faster cleaning** 

## **FEATURES**

- Bright white color

without measuring or diluting





# ZP-9F

### SPECIFICATION COMPLIANCE

- AMS2644
- ASME BPVC-V
- ASTM E165/E165M-18
- ASTM E1417/E1417M
- MIL-STD-2132D
- Pratt & Whitney PMC 4357-2
- Propan-2-ol content = 10.8%
- Rolls Royce RRP 58003 (CSS 232)
- SAFRAN Pr 5000/ln 5000

### **PRODUCT PROPERTIES**

Form and colour	White liquid
Density	0.83 g/cm <sup>3</sup>
AMS 2644 class	Form d - Type 1
	Form e - Type 2
Flash point	-6°C (bulk product)
	-40°C (aerosol)
Sulphur content	< 300 ppm
Chloride content	< 300 ppm
Corrosion	Meets AMS 2644

Like all Magnaflux materials, ZP-9F is closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

### **USER RECOMMENDATIONS**

NDT Method	Penetrant Testing
Storage temperature	10°C to 30°C
Usage temperature	-5°C to 50°C
Coverage	20 - 30m² per litre 10 - 15m² per aerosol
Cleaner	SKC-S
Water-washable penetrants	SKL-WP2, ZL-15B, ZL-19, ZL-60C, ZL-60D, ZL-67B, ZL-56
Post-emulsifiable penetrants	SKL-SP2, ZL-2C, ZL-27A, ZL-37
UV lamps	EV6000, ST700

### **INSTRUCTIONS FOR USE**

Before using any developer, ensure the test surface is clean, free from excess penetrant, and dry. Residue from water-based penetrants can be removed with a water spray; solvent-based penetrants by wiping with a solvent cleaner.

With **visible penetrants**, cracks will appear as red lines and porosity as spots. If you see a general reddish colour or pink film, that means the penetrant was not completely removed.

With **fluorescent penetrants**, indications will fluoresce bright yellow/green under UV light (we recommend our EV6000 UV-LED lamp). If you see a general greenish film, that means the penetrant was not completely removed.

If left to stand, the developer particles will settle out of suspension. ZP-9F must be continually agitated/shaken during use to ensure uniformity of mix.

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# ZP-9F

Apply by spraying only (dipping or brushing will cause excessive solvent action) by aerosol or conventional spray gun.

Spray in thin even layers which just wet the surface. Too wet a spray will cause excessive bleeding and running of indications; too dry a spray will result in slowindication development, as well as possible loss in overall sensitivity.

After inspection, remove developer residue by wiping with a cloth, or use a water and detergent wash.

### PACKAGING AND PART NUMBERS



### **HEALTH AND SAFETY**

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the Safety Data Sheets, which are available at **www.magnaflux.eu**