

ZP-9F

Solvent-based Developer

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.



BENEFITS

Increases indication visibility

- Improves indication detection by creating an optimal surface for penetrant indication formation
- Bright white, opaque coverage blocks all underlying surface color and quickly draws penetrant to the surface for stronger, clearer indications

Application versatility

- Can be used with a variety of Type 2 and Type 1 penetrants in many different situations without measuring or diluting

Faster cleaning

- Reduces inspection process time by minimising post-inspection cleaning

FEATURES

- Bright white color
- Provides good background contrast
- Wicks penetrant out of indications
- Fast drying
- Easy to apply
- Convenient, ready-to-use formula
- Very low toxicity
- Matte, opaque coating
- Easy to clean

- 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
- Castings
- 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.

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SPECIFICATION COMPLIANCE

- AMS2644
- ASME B & PV Code, Sec V
- ASTM E165/E165M
- ASTM E1417/E1417M
- MIL-STD-2132D
- MIL-STD-271F
- Pratt & Whitney PMC 4357-2
- Propan-2-ol content = 10.8%
- Rolls Royce RRP 58003 (CSS 232)
- SAFRAN Pr 5000/In 5000

PRODUCT PROPERTIES

Form and colour	White liquid
Density	0.83 g/cm ³
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 - 30m ² per litre 10 - 15m ² per aerosol
Cleaner	SKC-S
Water-washable penetrants	AL-4B, 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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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 slow indication 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



008A010 (x 10)

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 eu.magnaflux.com.