

101

Oil-based Fluorescent Magnetic Ink

BYCOTEST® 101 is an oil-based, ready-to-use fluorescent ink for wet method magnetic particle testing. The perfect choice for critical applications, it gives clear, fluorescent, yellow/green indications when viewed in a darkened area under UV(A) light of peak wavelength 365nm.



Used in conjunction with suitable magnetising equipment, 101 will locate medium-fine surface and slightly sub-surface defects in ferrous materials.

BENEFITS

Detects more indications

- Finds smaller, finer indications in critical applications

Minimises inspection time

- Clear, bright indications form quickly with minimal background fluorescence

Improves inspection consistency and reliability

- Maintains system performance over longer periods of time
- Conforms to multiple industry specifications.

FEATURES

- Ready-to-use
- Clear, bright indications under UV light
- Low maintenance, oil-based suspension
- High sensitivity
- Excellent fluorescent contrast for quick identification and better inspection quality
- Excellent particle mobility
- Good dispersion stability
- Great concentration consistency
- Superior surface wetting
- Even surface coverage for better detection

SPECIFICATION COMPLIANCE

- AMS2641
- AMS3044
- AMS3045
- AMS3046 (Aerosols only)
- ASME B & PV Code, Sec V
- ASTM E709
- ASTM E1444/E1444M
- EN ISO 9934-2

APPLICATIONS

Defect location: surface and slightly subsurface

Ideal for:

- Detecting very fine to fine discontinuities
- Critical applications
- After secondary processing
- In-service inspections
- High strength alloys

Ideal for:

- Shrink cracks
- Welding defects
- Grinding cracks
- Quenching cracks
- Fatigue cracks

101

COMPOSITION

A suspension of fluorescent magnetic particles in a high-flash, low-odour petroleum distillate.

PRODUCT PROPERTIES

| | |
|----------------------------|------------------------|
| Form and colour | Light brown suspension |
| Flash point | -40°C |
| SAE sensitivity | 8 - 9 |
| Viscosity at 38°C | 2.5 mm ² /s |
| Settlement volume | 0.1 - 0.25 ml (1 hour) |
| Magnetic particles | MG 601 |
| Particle size range | 3 - 5 µm |
| Sulphur content | < 200 ppm |
| Halogens content | < 200 ppm |

Like all Magnaflux materials, 101 is closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

USER RECOMMENDATIONS

| | |
|----------------------------|--|
| NDT Method | Magnetic Particle Testing, Fluorescent, Wet Method |
| Storage temperature | 10°C to 30°C |
| Usage temperature* | -10°C to 50°C |
| Suspension Vehicle | Carrier II |
| Cleaners | C5, C10, SKC-S |
| UV lamp | EV6000, EV65000, ST700 |
| Accessories | Centrifuge Tube, MTU No.3 Test Block (EN ISO 9934-2) |

* For use of an inspection vehicle conforming to AMS2641, minimum temperature is 6 °C.

INSTRUCTIONS FOR USE

Clean the component before testing to reduce the risk of contamination and provide a suitable test surface.

Mix the ink thoroughly and keep it agitated during testing.

Apply the ink by spraying, flooding or immersion, depending on your chosen method (see below):

Shake the aerosol can for 30 - 60 seconds to ensure that the ink is mixed thoroughly. You will need to shake the can repeatedly during use.

Spray the ink onto all surfaces of the component. The indications will be formed during the application of a magnetising current.

After inspection, the components should be properly demagnetised before cleaning.

PACKAGING AND PART NUMBERS



008A170 (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 www.magnaflux.eu