

# 410HF

## Oil-based Fluorescent Magnetic Ink

MAGNAGLO® 410HF is an oil-based, ready-to-use fluorescent ink for wet method magnetic particle testing. It gives clear bright yellow/green indications when viewed in a darkened area under UV(A) of peak wavelength 365nm.



Used in conjunction with suitable magnetising equipment, 410HF will locate medium-fine surface and slightly sub-surface defects.

### 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
- Protects parts and equipment against corrosion
- Great concentration consistency
- Superior surface wetting
- Even surface coverage for better detection

### SPECIFICATION COMPLIANCE

- AMS2641
- ASME BPVC-V
- ASTM E709
- MIL-STD-2132D
- SAFRAN In 5300

### COMPOSITION

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

### 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:**

- Inclusions
- Seams
- Shrink cracks
- Tears
- Laps
- Flakes
- Welding defects
- Grinding cracks
- Quenching cracks
- Fatigue cracks

### PRODUCT PROPERTIES

<b>Form and colour</b>	Green liquid
<b>Flash point</b>	> 93°C
<b>SAE sensitivity</b>	6
<b>Particle size range</b>	14 - 22 µm
<b>Settlement volume</b>	0.05 - 0.15 ml

## 410HF

Like all Magnaflux materials, 410HF is closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

### USER RECOMMENDATIONS

<b>NDT Method</b>	Magnetic Particle Testing, Fluorescent, Wet Method
<b>Storage temperature</b>	10°C to 30°C
<b>Usage temperature</b>	-5°C to 48°C
<b>Suspension Vehicle</b>	Carrier II
<b>Magnetic Particles</b>	14A, MG 410
<b>Cleaner</b>	SKC-S
<b>UV Lamp</b>	EV6000, EV6500, ST700
<b>Accessories</b>	Centrifuge Tube, MTU No.3 Test Block (EN ISO 9934-2)

### 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:

#### Wet continuous method

Apply the ink to all surfaces of the component and apply a magnetising current. Remember to stop the flow of ink before the current is switched off, otherwise there is a risk that the force of the ink flood may wash away indications.

#### Wet residual method

This method is generally less sensitive than the continuous method and is more susceptible to rapid particle depletion and bath contamination.

- Pre-magnetise the part to be tested.
- Immerse the part in a bath of the ink.
- Remove it and allow it to drain.
- Inspect the part.

During use, the magnetic content of any ink bath will become depleted so you will need to check your bath strength at least once each day. The most widely-used way of checking an ink's settlement volume is by using a graduated ASTM pear-shaped centrifuge tube.

When the settlement volume approaches the lower limit (0.05 ml), check the bath. If the bath appears contaminated, or if it has been in use for a long time, replace the contents. If it is still clean and uncontaminated, add some MG 410 powder.

After inspection, remember to completely demagnetise your component before cleaning, to ensure easy removal of any residual powder particles.

### PACKAGING AND PART NUMBERS



008A106 (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](http://www.magnaflux.eu)