

690.1

## Oil-based Fluorescent Magnetic Ink



TIEDE® 690.1 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, 690.1 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
- AMS3044
- AMS3045
- AMS3046 (Aerosols only)
- ASME BPVC-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:**

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

### COMPOSITION

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

# 690.1

## PRODUCT PROPERTIES

<b>Form and colour</b>	Brown liquid
<b>Flash point</b>	-40°C
<b>SAE sensitivity</b>	8 - 9
<b>Particle size range</b>	3 - 5 µm
<b>Sulphur content</b>	< 200 ppm
<b>Halogens content</b>	< 200 ppm

Like all Magnaflux materials, 690.1 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 50°C
<b>Settlement volume</b>	0.1 - 0.25 ml (1 hour)
<b>Recommended concentration range</b>	0.4 - 0.9 g/litre
<b>Suspension Vehicle</b>	Carrier II
<b>Magnetic Particles</b>	14A, MG 410
<b>Cleaner</b>	SKC-S
<b>UV lamps</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.

Shake the aerosol can to mix the ink thoroughly.

Spray all surfaces of the part while applying a magnetising current. Remember to stop spraying the ink before the current is switched off, otherwise the force of the ink could wash away any indications.

Shake the can regularly during during testing.

After inspection, demagnetise your component before cleaning to ensure easy removal of any particle residue.

## PACKAGING AND PART NUMBERS



008A185 (x 10)