

# 104A, 104plus

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## White Contrast Paint



BYCOTEST® 104A and 104plus are ready-to-use, rapid-drying white contrast paints. They produce a high-opacity, semi-matt, thin white film to enhance visible indications on dark-coloured test surfaces and improve probability of detection and sensitivity during visible magnetic particle inspections.

104A and 104plus can be used with all types of coloured and visible magnetic particles, and are suitable for use in both dry method and wet method magnetic particle inspection.

### BENEFITS

#### Maximise indication detection

- See indications more easily on the bright white surface which highlights indications while minimising glare and reflections.

#### Increase inspection speed

- Speed up inspections by applying a clean coat on the first pass, without bubbles or flakes.
- Dries evenly and quickly to create an optimal surface for faster indication formation.

#### Application versatility

- Comes in a convenient aerosol to take it with you wherever you go.
- Can be used with wet or dry method magnetic particles on virtually any part.
- Conforms to ISO 9934 specifications.

### FEATURES

- Bright white color
- High opacity
- Provides good background contrast
- Fast drying
- Convenient, ready to use formula
- Controlled application
- Strong surface adhesion
- Matte coating
- Very low toxicity
- Low in sulphur and halogens
- Contains no chlorinated hydrocarbons

### SPECIFICATION COMPLIANCE

- ASME B & PV Code, Sec V
- EN ISO 9934-2
- GOST R ISO 9934-2-2011

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## 104A, 104plus

## APPLICATIONS

## Ideal for:

- Field testing
- Spot inspections
- In-service inspections

## COMPOSITION

Inert inorganic pigments and acrylic binder in a solvent blend. 104A's solvent base is ethanol; 104plus is based on acetone.

## PRODUCT PROPERTIES

Form and colour	White mobile liquid	
Sulphur content	< 200 ppm	
Halogen content	< 200 ppm	

	104A	104plus
Flash point	-41°C	-40°C
Density	1.05 g/cm <sup>3</sup>	0.93 g/cm <sup>3</sup>
Boiling point	ca. 80°C	56°C

Like all Magnaflux materials, our contrast paints are closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

## USER RECOMMENDATIONS

NDT Method	Magnetic Particle Testing, Visible, Wet Method
Storage temperature	10°C to 30°C
Usage temperature	-5°C to 50°C
Coverage	10 - 15m <sup>2</sup> per aerosol
Visible magnetic inks	103, 7HF, WB-27
Cleaner/removers	C10, SKC-S

## INSTRUCTIONS FOR USE

Clean the component before testing to provide a suitable test surface.

Shake the aerosol can to ensure the paint particles are evenly distributed.

Apply a thin, even film of the paint to the test surface by spraying. Allow to dry.

Apply magnetic particles to the test surface and observe any indications formed around leaks/defects. If the test material has a high retentivity, indications will remain visible; otherwise, the indications will slowly fade.

After inspection, demagnetise the test part before cleaning. The dried paint film can be removed using a wire brush or our C10 cleaner.

## PACKAGING AND PART NUMBERS

## 104A



008A172 (x 10)

## 104plus



008A173 (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](http://eu.magnaflux.com).

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# BYCOTEST 103

پترو فرهان گستر جنوب



## READY-TO-USE BLACK MAGNETIC INK

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### General description

Bycotest 103 is an oil-based, ready-to-use black ink that gives clear black indications when viewed in daylight.

### Applications

Used in conjunction with suitable magnetising equipment, 103 will locate medium-fine surface and slightly subsurface defects in ferrous materials. Typical defects found include shrink cracks, welding defects, grinding cracks, quenching cracks and fatigue cracks.

### Composition

103 is a suspension of black magnetic particles in a high-flash, low-odour petroleum distillate.

### Benefits

- Ready to use
- High sensitivity
- Clear indications

### Typical Properties (not a specification)

Property	103
Form and colour	Black suspension
Flash point	> 93°C (bulk)
SAE sensitivity	6 - 7
Viscosity at 38°C	2.5 mm <sup>2</sup> /s
Settlement volume (1 hour)	1.2 - 2.4 ml
Particle size (mean)	0.2 - 2.0 µm
Sulphur content	< 200 ppm
Halogen content	< 200 ppm
Storage temperature	10°C to 30°C
Usage temperature	-10°C to 50°C

Like all Magnaflux materials, 103 is closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

### General Method of Use

- **Clean the component before testing** to reduce the risk of contamination and provide a suitable test surface.
- **If the test surface is a dark colour**, apply a thin coating of a suitable white contrast paint - such as 104A or 104Plus - to provide a better contrasting background.
- **Shake the aerosol can** for 30 - 60 seconds initially 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.

### Recommended Products

Product type	Product Name(s)
Precleaning / cleaning	C10, C15
Contrast paints	104 and 104Plus

### Specification Compliance

Specification	103
AMS3043D (Aerosols only)	✓
ASME B & PV Code, Sec V	✓
EN ISO 9934-2	✓

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