

## Black Ink

### BI-2

Article No. 690.400 / 400 ml

#### Product description

The best choice for reliable, effective defect detection in a wide range of applications. BI-2 has been formulated to provide the best quality of indication in daylight inspection. Cost effective and assured.  
Wet method, oil based, ready to use, daylight visible ink.

#### Application

Castings, forgings, weld inspection, metal fabrication, railways, power generation components and pipelines.

#### Composition

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



#### Method of Use

- 1 Clean the component prior to testing to ensure it is free from contamination and to provide a suitable test surface.
- 2 Apply a thin coating of ECS White Contrast Paint (WP-1) to provide a contrasting background color.
- 3 Agitate the can thoroughly, by shaking, to agitate the particles, ensuring a uniform distribution.
- 4 Apply the ink by spraying.
  - a. Wet Continuous Method  
Apply the ink and magnetize using either a permanent or electromagnet. Stop the flow of ink before the magnetization discontinues to avoid washing away indications.
  - b. Wet Residual Method  
Pre magnetize the component. Spray ink.
- 5 After inspection demagnetize the component before cleaning thus ensuring easy removal of magnetic powder particles.

#### Storage / Shelf Life

Shelf life is 3 years if stored correctly.

Typical Properties	BI-2
Flash point	>93°C (as a bulk)
SAE viscosity	6 to 7
Viscosity at 38 deg C	2.5 mm <sup>2</sup> /sec
Density	0.8 g/cm <sup>3</sup>
Particle Size Range	0.2 to 2.0 microns
Settlement Volume (1 hr)	1.5 to 2.4 ml
pH (2% solution)	Neutral
Storage Temperature	10 to 30°C
Usage Temperature	-5 to 50°C

Specification Compliance	BI-2
AMS 2641	Yes
AMS 3041	Yes
ASM 3043 (Aerosol)	Yes
ASME B & PV Code Sec V	Yes
ASTM E709	Yes
ASTM E1444/E1444M	Yes
EN ISO 9934-2	Yes
GOST R ISO 9934-2-2011	Yes
MIL-STD-2132D	Yes

Associated Products	ECS Product Designation
White Contrast Paint	WP-1
Cleaner	CL-1

#### Please note

Read the relevant Safety Data Sheet before use. Sheets are available on request from ECS.