



Product Data

NEO ASTRA FCW

Fluorescent Magnetic Particle Inspection – Magnetic Ink Concentrate

Neo Astra FCW is a Fluorescent Magnetic Ink Concentrate for use in the Magnetic Particle Inspection Process. The product is water based and non-flammable when diluted at the recommended 50:1. Supplied in 500ml containers, Neo Astra FCW has good particle mobility using the highest grade of particles, selected for their response to very low magnetic field strengths and also low coercivity. This makes the Ink responsive whilst avoiding coagulation. The concentrate contains wetting agents, a rust inhibitor and anti-foam.

Typical Properties

Form	Viscous Brown Liquid before dilution (Concentrate) Bright yellow/green under UV
Density	1.0 at 15°C (Concentrate)
Flash Point	Non Flammable °C
Solid Content	0.25 % Typical by volume after 1 hour (After Dilution 50:1)
Viscosity	< 3cst at 40 °C

Method of Use

Trigger spray, wash bottle, immersion or wash hose from Bench Unit hopper delivery. The magnetising field must be held until spraying/washing ceases or for immersion applications, until the component has broken free of the surface. The fluid will require regular agitation in use to ensure even dispersion of particles. Johnson and Allen recommend the use of a 100ml centrifuge tube to verify solid content.

NeoAstra FCW (upon dilution) is flooded over the surface to be inspected whilst the area is magnetised in the required orientation

(The greatest build up occurring when surface defects are at 90° to the field applied) The magnetic field must be held on until ink application has finished to avoid washing off indications.

Optimum lighting condition require viewing using a UV 365nm peak source giving a minimum intensity of 1000 $\mu\text{W}/\text{cm}^2$ at the surface (1200 $\mu\text{W}/\text{cm}^2$ for aerospace applications) and a maximum ambient white light of 20 Lux (Approx 2 foot candles) with the lamp switched on.

The MPI System provides a high level of integrity when used on aerospace components, welded fabrications, pressure vessels, structures, pipes, castings, forgings and many other ferromagnetic components. Neo Astra FCW is one of the safest of all the magnetic inks Johnson and Allen Ltd manufacture.

Although rust inhibited, it is recommended that finished components be dipped in a dewatering fluid before long term storage.

Specification Compliance

NeoAstra FCW Complies with BS EN ISO 9934-2:2002 Pack size 500ml. (2.5L and 5L) by arrangement.

COSHH – Please read the relevant COSHH for this product.

Alternative Products (Magnetic Inks)–

NeoAstra FC Standard Fluorescent Concentrate – (Hydrocarbon based) **NeoAstra F** and **NeoAstra DG** – Ready mixed hydrocarbon based Inks.

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