



Product Data

NEOASTRA DGC

Magnetic Particle Inspection – Daylight Fluorescent Magnetic Concentrate (Ultra Bright)

NeoAstra DGC is a high grade Fluorescent Magnetic Ink Concentrate for use in the Magnetic Particle Inspection Process. The product is hydrocarbon based and is diluted using a suitable carrier fluid at the recommended 50:1. Supplied in 500ml containers, NeoAstra FC 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.

Typical Properties

Form	Thick Green Mobile Liquid when agitated, fluorescent green under UV Light
Density	0.8 at 15°C when diluted, (approx 1.35 in concentrate form)
Flash Point	> 100 °C (Carrier fluids with fp's below 100 °C are not recommended for MPI use)
Solid Content	0.3 % Typical by volume after 1 hour (50:1 dilution)
Viscosity	< 3cst at 40°C when mixed with a suitable carrier fluid e.g. Johnson and Allen CF-100

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 DGC (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.

Defects will show up as well defined indications and inspection should be undertaken in good UV lighting conditions (over 1000 $\mu\text{W}/\text{cm}^2$ at 365nm peak) Past experience has shown that up to 500 Lux white light may be allowable for certain detection operations.

NeoAstra DGC provides a high level of integrity when used on welded fabrications, pressure vessels, structures, pipes, castings, forgings and many other ferromagnetic components.– approvals upon application.

Specification Compliance (assumes correct dilution fluid)

Neocol BC 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 F – Ready mixed hydrocarbon based

NeoAstra FCW (Fluorescent Concentrate for Water Dispersion)

NeoAstra FC (Fluorescent Concentrate for Hydrocarbon Dispersion)

Neocol B Black Inks – (Daylight Inspection)

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