FlawGlo®

Magnetic Particle Testing (MPT) is a highly effective method for surface and sub-surface examination of ferro-magnetic materials. This technique relies on the fundamental principle that ferrous particles are attracted to magnetic fields. During the process, the material or component under scrutiny is magnetized, and magnetic particles are then applied to the targeted surface. These particles are subsequently drawn to any areas of magnetic flux leakage, thereby forming visible indications of potential defects. Notably, these indications are typically significantly larger (approximately 10 times) than the actual defects, facilitating easier detection.

Two main categories of magnetic particles are employed: non-fluorescent particles for observation under white light, and fluorescent particles for examination under UV light. Additionally, these particles can be further categorized based on application method, including the dry method and the wet method. In the wet method, magnetic particles are dispersed in either oil or water.

The selection of high-quality testing chemicals is paramount to the success and accuracy of magnetic particle testing. The FlawGlo series offers a comprehensive range of magnetic particle testing chemicals tailored to various applications, including oil-based, water-based, and dry applications, available in both visible and fluorescent formulations.

Salient Features:

- High Sensitivity
- Superior Flaw Resolution
- Low in Sulphur & Halogen Content
- Processing Temperature Range 0 to 49°C

Magnetic Particle Testing Chemicals

Technical Data of Aerosol Cans

Part No.	Description	Approval & Specifications	Application/Industry
WCP 104	White Contrast Paint	IS 3703:2004, ISO 9934-2, ASME B&PV, ASTM E1444, ASTM E709, ASME SECTION V, ASTM E138	• For Better contrast with BMI 106 / OV 106
BMI 106	Black Magnetic Ink	IS 3703:2004, ISO 9934-2, AMS 3042, ASME B&PV, ASTM E709, ASTM E3024, MIL-STD-271, MIL-STD-2132, NAVSEA 250 -1500 -1	• Machined & Finished surface • Spot inspection • In-service inspection
FMI 800	Fluorescent Magnetic Ink	IS 3703:2004, ISO 9934-2, AMS 3044, API RP 5A5, ASME B&PV, MIL-STD-271, MIL-STD-2132, NAVSEA 250-1500-1, ASTM E709, ASTM E1444	• Automotive • Aerospace • Railways • Oil & Gas

Technical Data of Wet Powders

Part No.	Description	Dilution	Approval & Specifications	Application/Industry
WF 10	Water Fluorescent Powder (2-5 micron, average particle size is 3 micron)	10gm/ltr	IS 3703:2004, ISO 9934-2, ASTM E 1444, ASTM E709, ASTM E3024, AMS 3044, ASME B&PV, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E	• Automotive • Steel manufacturing • Forging • Oil & Gas
WF 834	Water Fluorescent Powder (2-5 micron, average particle size is 3 micron)	5gm/ltr	IS 3703:2004, ISO 9934-2, ASTM E 1444, ASTM E709, ASTM E3024, AMS 3044, API RP 5A5, ASME B&PV, MIL-STD-271, MIL-STD-2132, NAVSEA 250-1500-1	• Automotive • Steel manufacturing • Forging • Railways
WF 418	Water Fluorescent Powder (2-18 micron, average particle size is 7.5 micron)	6gm/ltr	IS 3703:2004, ISO 9934-2, ASTM E 1444, ASTM E709, ASTM E3024, AMS 3044, API RP 5A5, ASME B&PV, MIL-STD-271, MIL-STD-2132, NAVSEA 250-1500-1	• Oil & Gas • Billet/bar inspections • Heavy Engineering
OF 800	Oil Based Fluorescent Powder Water Fluorescent Powder (2-5 micron, average particle size is 3 micron)	1gm/ltr	IS 3703:2004, ISO 9934-2, ASTM E 1444, ASTM E709, ASTM E3024, AMS 3044, API RP 5A5, ASME B&PV, MIL-STD-271, MIL-STD-2132, NAVSEA 250-1500-1	• Automotive • Aerospace • Railways • Oil-Gas • Steel
OV 106	Oil Based Visible Powder Water Fluorescent Powder (0.5-4 micron, average particle size is 1.5 micron)	9.5gm/ltr	IS 3703:2004, ISO 9934-2, ASTM E709, ASTM E3024, AMS 3042, ASME B&PV, MIL-STD-271, MIL-STD-2132, NAVSEA 250-1500-1	• Machined & Finished surface

Standard Packaging

- Aerosol Can (1 Box of 10 Cans), each can with Net Qty 400 ml
- Wet powders are available in 1 kg.

ATPL Brochure MPT Chemicals 2025/05 Rev. 00

ARORA
Arora Technologies (P) Limited

Plot No. D-183/8, MIDC, TTC Nerul, Navi Mumbai, Maharashtra 400706, India
T: +91 22 6138 0600 | **E**: info@arorandt.com | **W**: www.arorandt.com

MADE IN INDIA