FlawGlo™ Magnetic Particle Testing Chemicals

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
- Temperature Range 0 to 49°C
- Conforms to ASTM E-1444, ASTM E-3024, ASTM E-709, ASME BPVC Sec V, AMS-3044, EN ISO 9934-2

Technical Data of Aerosol Cans

Part No.	Description	Approval & Specifications	Application/Industry
FlawGlo WCP 104	White Contrast Paint (420 ml Aerosol Can) 1 Box (10 Cans)	ASTM E1444, ASTM E-709, ASME SECTION V, ASME BPVC, ASTM E-138	• For Better contrast with BMI 106 / OV 106
FlawGlo BMI 106	Black Magnetic Ink (420 ml Aerosol Can) 1 Box (10 Cans)	ASTM E-3024, ASTM E-709, ASME B & PV Code - Section V, MIL-STD-271(SH), AMS 3042, NAVSEA 250 -1500 -1	• Machined & Finished surface • Spot inspection • In-service inspection
FlawGlo FMI 800	Fluorescent Magnetic Ink (420 ml Aerosol Can) 1 Box (10 Cans)	ASTM E 1444, ASTM E-709, ASME SE - 709, ASME B & PV Code - Section V, ASTM E 3024, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E, AMS 3046, AMS 2641, AMS 3161	• Automotive • Aerospace • Railways • Oil & Gas

Technical Data of Dry Powder

Part No.	Description	Dilution	Approval & Specifications	Application/Industry
FlawGlo ARDP 07	Red Dry Powder, (1 kg Container)	NA	ASTM E-709, ASME BPVC Section V, IS 6410, BS4069/6072	• Weld testing • Highly reflective surfaces • Rough textured surfaces
FlawGlo ABDP 01	Black Dry Powder, (1 kg Container)			
FlawGlo AGDP 08	Grey Dry Powder, (1 kg Container)			

Technical Data of Wet Powder

Part No.	Description	Dilution	Approval & Specifications	Application/Industry
FlawGlo WF 10	Water Fluorescent Powder (2-5 micron, average particle size is 3 micron)	10gm/ltr	ASTM E 1444, ASTM E-709, ASME B & PV Code - Section V, ASTM E 3024, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E, AMS 3044	• Automotive • Steel manufacturing • Forging • Oil & Gas
FlawGlo WF 834	Water Fluorescent Powder (2-5 micron, average particle size is 3 micron)	5gm/ltr	ASTM E 1444, ASTM E-709, ASME B & PV Code - Section V, ASTM E 3024, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E, AMS 3044	• Automotive • Steel manufacturing • Forging • Railways
FlawGlo WF 418	Water Fluorescent Powder (2-18 micron, average particle size is 7.5 micron)	6gm/ltr	ASTM E-1444, ASTM E709, ASTM E-3024, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E	• Oil & Gas • Billet/bar inspections • Heavy Engineering
FlawGlo OF 800	Oil Based Fluorescent Powder	1gm/ltr	ASTM E 1444, ASTM E-709, ASTM 3024, AMS 3044, ASME B & PV Code - Section V, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E	• Automotive • Aerospace • Railways • Oil-Gas
FlawGlo OV 106	Oil Based Visible Powder	9.5gm/ltr	ASTM E-3024, MIL-STD-1949, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E, AMS 3042	• Machined & Finished surface

Note : Standard Packaging is 1Kg

ATPL Brochure MPT Chemicals 2024/03 Rev. 00

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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

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