

Fluorescent Magnetic Particles Flaw Detection Materials Super Magna Series



Fluorescent Magnetic Particles(FMP)

FMP shows fluorescence by UV radiation. Used as the suspension of water or oil with conditioner.

Features

- High fluorescent brightness assures excellent visibility to the fine defects.
- Less fluorescence deterioration produces long lasting performance.
- Inspection cost will be reduced by smaller consumption.

Non-fluorescent Magnetic Particles(MP)

There are three colors MP. Those are White/Red/Black. Wet method is used as the suspension of water or oil with conditioner.

Dry method is used with applicator.

Features

- Vivid colors show good contrast to the objective surface.
- Less peel off has realized by special production process.
- Dry method is suitable for sub-surface MPI.



Type, characteristics and application

Type	Color	Fluorescent coefficient(cd/W)	Particle size(μm)	Applications
Fluorescent Magnetic Particles (for wet method only)				
LY-10	GY	8.2±10%	10~15	Multi-purpose, *, **
LY-20	GY	11.2±10%	12~21	High-brightness, law material, *, **
LY-30	GY	5.8±10%	4.5~6.5	Precision inspection, aircraft parts etc. , *,** and DIN
LY-40	GY	5.8±10%	8~15	Multi-purpose, *, **
LY-50	YG	5.4±10%	10~15	Multi purpose, for oil suspension, **
Non-fluorescent Magnetic Particles				
WD-55	White	—	—	Multi-purpose, for dry method
WD-103Y	White	—	—	Multi-purpose, for dry method
RD-203	Red	—	—	Multi-purpose, for dry method
BW-334	Black	—	—	Multi-purpose, for wet method

1. Color : GY = Greenish Yellow YG = Yellowish Green

2. Evaluation by fluorescent coefficient(cd/W) Fluorescent coefficient = luminance / intensity of ultraviolet

3. Particle size (by laser scattering particle size distribution analyzer)

4. * = Water suspension only

5. ** = AMS 3044 (ASTM E 1444) Certificate is possible to be issued based on request. Please inform us when you place the order.

Particle concentration ml/100ml

Standard	FMP	Non-FMP
ASTM	0.1-0.4	1.2-2.4

Suspension vehicles

For oil suspension		
SO-220B	—	Meets AMS
SO-220C		
For water suspension		
Eco-Magna EC-4	5ml (5g) /L	Liquid type, human and environmental safty, dispersing ability and wetting ability
BC-700	1-2%	Liquid type, adaptable for painting of workpiece after inspection

☆ Super-keep AR-100K(1-5%) addition to the suspension is effective for short time rustproof.

☆ For deforming, Super-Magna antiforming agent 71A shall be added.

Type of Aerosol & Suspension

Type	Concentration	Features		
Aerosol				
LY-10 (oil)	Oil base	No need for care of rust	2.0g/L	(450 type Aerosol)
LY-10 (water)	Water base	Safe and clean	0.75g/L	(450 type Aerosol)
LY-10 (rapid dry)	Solvent base	Good operation efficiency	1.5g/L	(450 type Aerosol)
Concentrated suspension				
LY-10 Conc.	—	Dilute one bottle of LY Conc. with 100 litter of water and agitate it, FMP suspension (1.0g/L) has prepared.		
LY-20 Conc.				
LY-30 Conc.				
LY-40 Conc.				

Caution: Aerosol propellant all of oil, water and solvent are flammable.

