

Magnetic Particles for NDT

Super-Magna series



luorescent 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.

on-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

Туре	Color	Fluores cence	Particle size(µm)	Applications			
Fluorescent Magnetic Particles (for wet method only)							
LY-10	GY	180	3~7	Multi-purpose, *, **			
LY-20	GY	260	3~7	High-brightness, law material, *, **			
LY-30	GY	110	1~4	Precision inspection, aircraft parts etc. ** and DIN			
LY-40	GY	125	1~5	Multi-purpose, **			
LY-50	YG	180	3~7	Multi purpose, for oil suspension, **			
LY-60	YG	154	3~4	For residual method, casting/quenching parts,*			
Non-fluorescent Magnetic Particles							
WD-55	White	_	22~67	Multi-purpose, for dry method			
WD-103Y	White	_	8~25	Law material, for dry method			
BD-303	Black	_	6~23	Law material, for dry method, **			
BW-333	Black	_	1~3	Law material, for wet method, **			

- 1. Color: GY = Greenish Yellow YG = Yellowish Green
- 2. Fluorescence is indicated as a relative value compared to standard products.
- 3. Particle size indicated according to JIS-G0565 (Microscope method)
- 4. * = Water suspension only
- 5. ** = meet ASTM, AMS

Particle concentration ml/100ml

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

Suspension vehicles

As the suspension vehicle, water or oil shall be used. For oil suspension, SO-220B (meets AMS) or kerosine (JIS-K2203) shall be used. For water suspension, water conditioner shall be used.

Water conditioner

Туре	Concentration	Features	
BC-1	1~3g/L	Powder type, antifoaming ability	
BC-2	1~3g/L	Powder type, dispersing ability, wetting ability	
Eco-Magna EC-3	5ml (5g) /L	Liquid type, human and environmental safty, easy waste water treatment	
Eco-Magna EC-4	5ml (5g) /L	Liquid type, human and environmental safty, dispersing ability and wetting ability	

Ready for use suspension

Type	Vehicles	Features/Concentration				
LY-10 (oil)	Oil base	No need for care of rust	2.0g/L	(450cc Aerosol)		
LY-10 (water)	Water base	Safe and clean	0.75g/L	(450cc Aerosol)		
LY-10 (rapid dry)	Solvent base	Good operation efficiency	1.5g/L	(450cc Aerosol)		
LY-10 Conc	Dilute one bottle cap of LY Conc. with 10 litter of water and agitate it, FMP suspension (0.7g/L) has prepared.					
LY-40 Conc	(concentrated suspension)					

Caution: Aerosol propellant, oil and solvent are flammable.

Integrated supplier of Non-Destructive Testing and Marking

 $\ensuremath{\mbox{\ensuremath{\bowtie}}}$ All specifications and designing are subject to change without notice.



Head Office 17-35, Omori Nishi 4-chome, Ota-ku, Tokyo 143-0015 Japan Tel: +81-3-3762-4451 Fax: +81-3-3764-4337 URL: http://www.marktec.co.jp

Service Center (East) Tel: +81-3-3765-1712 Fax: +81-3-3768-3958

(West) Tel: +81-6-4861-3700 Fax: +81-6-4861-3702

Narita Plant Tel: +81-476-49-3160 Fax: +81-476-49-3181

 $[\]gtrsim$ Super-keep AR-100K(1-5%) addition to the suspension is effective for short time rustproof.