

TASETO Chemical Products

NON DESTRUCTIVE INSPECTION Materials

for Magnetic Particle Inspection

TASETO JIKI CHECK (Magnetic Particles)

Products list

Fluorescent magnetic Particles

Designation	Fluorescent color	Mean particle size	Application	Characteristics
F-300	Greenish yellow	7.0 μ	Raw materials	General inspection
F-330(E)	"	5.0 μ	Precision parts	Precision inspection. Standard type
F-660	"	4.5 μ	"	Precision inspection.
F-800(X)	"	-	Ultra precision parts	Aerosol type for Ultra precision inspection.
F-900	"	10 μ	Automated testing	High brightness, good durability.
G-660	"	4.5 μ	Precision parts	Instant type, no dispersing agent is required.

Non-fluorescent magnetic particles

Designation		Appearance	Mean particle size	Method
White	W-100	White powder	35 μ	Dry
	W-200	"	20 μ	Wet
Red	R-100	Reddish brown powder	30 μ	Dry
	R-200	"	20 μ	Wet
Black	B-100	Black powder	15 μ	Dry
	B-200	"	5 μ	Wet

Dispersible agents for magnetic particles

Designation	Addition rate	Characteristics
SP-500	2%	Good dispersibility and wettability of magnetic particles.
SP-600	2%	Good dispersibility and defoaming of magnetic particles.
SP-700	1 ~ 2%	Good dispersibility and wettability of magnetic particles. Also excellent in defoaming and rust resistance.

TASETO JIKI CHECK

(Magnetic Particle Testing Materials)

(How to Use)

Applications

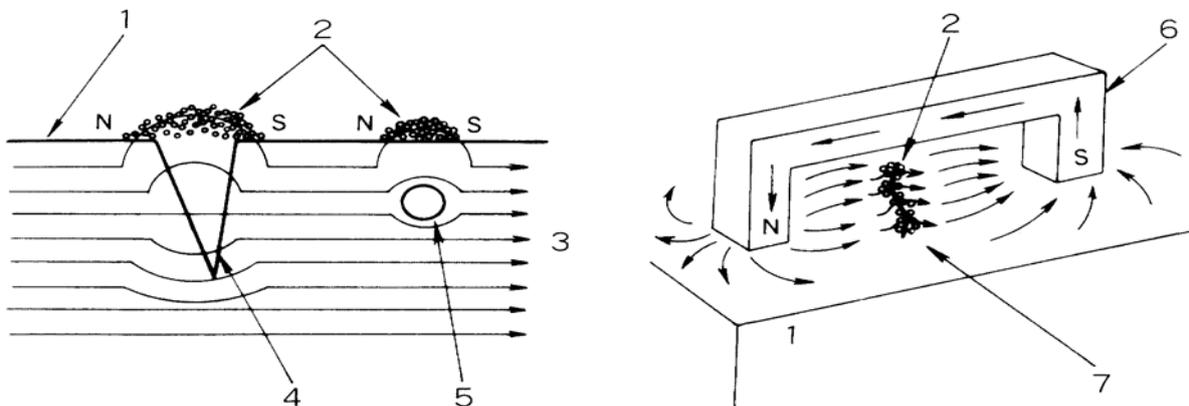
Ferromagnetic metals (mild steels, high tensile steels, steel castings)

Features

1. Excellent in detecting surface flaws on ferromagnetic steels (unusable for non-magnetic materials).
2. Can also detect flaws that not open to the surface.
3. Low testing cost.

Principle of magnetic particle testing

Applying a high current to a magnetized object, or exciting an object placed in a strong magnetic field causes the magnetic field to bend by discontinuities such as cracks or pinholes, which exist on the object surface or relatively shallow subsurface, to leak out at the defective surface as if magnetic poles were produced there. If you apply TASETO JIKI CHECK to the leakage surface, its magnetic particles are absorbed over a wide range by the defective surface, thus making minute flaws visible to naked eyes. The magnetic particle testing method employs the principle.



Key : 1. Item to be inspected 2. Magnetic particles 3. Magnetic field
4. Surface flaw 5. Internal flaw 6. Magnetic pole 7. Flaw

Testing method

The magnetic particle testing follows the procedure as follows.

Pre-cleaning

Magnetization (direct current, current induction, prod, coil or yoke method)

Application of TASETO JIKI CHECK

(continuous, residual, spraying, immersion, wet or dry method)

Interpretation (under white light or black light in a dark room)

Demagnetization (attenuation or transmission method)