

## MAGNAGLO<sup>®</sup> MG-2410 WET METHOD FLUORESCENT MAGNETIC POWDER

### GENERAL DESCRIPTION

Magnaglo<sup>®</sup> MG-2410 is green fluorescent magnetic powder blended with water conditioner. It is used in wet method magnetic particle testing when water is employed as the bath vehicle. Its bright green fluorescent color contrasts with the purple background of metal surfaces when viewed under black light in a darkened area, although a totally darkened inspection area is not required due to MG-2410's intense brightness.

### APPLICATIONS

Magnaglo<sup>®</sup> MG-2410 is used for general purpose wet method magnetic particle inspection of inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, quenching cracks and fatigue cracks.

### COMPOSITION

Magnaglo<sup>®</sup> MG-2410 is composed of Magnaglo<sup>®</sup> magnetic particles encapsulated in fluorescent pigment and non-ionic surfactants, corrosion inhibitors and anti-foaming agents.

### TYPICAL PROPERTIES (Not a specification)

Typical Properties	MG-2410
Color Under White Light	Green
Color Under Black Light	Bright Green Fluorescence
SAE Sensitivity	7
Settling Vol. @ 10.75 g/	0.03 - 0.1 ml
Temperature Limit	50° F (10° C)

### BATH PREPARATION

Magnaglo<sup>®</sup> MG-2410 is used as a bath vehicle. Weigh out an approximate amount of MG-2410, add enough water to form a thick slurry and mix material. Add the mixed slurry to the agitated bath and run pump for 10 minutes before commencing testing.

### CONCENTRATION CONTROL

The bath strength should be maintained constant at all times to ensure consistent results. The concentration should be checked at make-up time and at least once each day. The most widely used method of control is by gravity settling in a graduated ASTM pear shaped centrifuge tube. Magnaflux<sup>®</sup> part number 507923 is recommended for MG-2410 with a stem measure of 0.2 ml. The tube is filled to the 100 ml line with well

mixed bath and placed in the stand in a vibration-free location for 30 minutes. After 30 minutes the settling volume is taken. The settling volume indicates the amount of magnetic particles present in the bath. In billet units, the settling tube should be examined under black light to determine the amount of nonfluorescent scale present in the bath. Scale will reduce the brightness of the fluorescent indications and may completely overwhelm the fluorescent particles preventing flaw detection. A concentration of 10.75 g/ltr of MG-2410 will have a settling volume of 0.03 to 0.1 ml. If the reading is too high, add water. If the reading is too low, add MG-2410.

### **METHOD OF APPLICATION**

Parts should be cleaned prior to testing to reduce bath contamination and to ensure a more desirable test surface. The bath must be continuously agitated when in use to ensure uniformity, as particles will settle out of suspension on standing. Using the wet continuous method, the bath is applied to all surfaces of the part. The instant the bath stream is removed from the part the magnetizing current is applied. The indication will be formed during the current shot. If the bath is applied after the magnetizing shot, the force of the bath application may wash away indications.

### **POST INSPECTION CLEANING**

If required, parts should be demagnetized before cleaning to ensure ease of particle removal.

### **PACKAGING**

2 Lb. Jar/Case of Six,  
30 Lb. Pail