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TECHNICAL BULLETIN #213WAP

MI-GLOW 925

MI-GLOW 925 is a green magnetic powder used for fluorescent magnetic particle inspection. This product is a premix of MI-GLOW 920 fluorescent particles and WETTING AGENT for use in a water system. MI-GLOW 925 is designed for revealing very fine defects, such as those found in finished products and critical applications.

Properties

Particle Color: Fluorescent yellow-green

Specific Gravity: 1.1 g/ml

Particle Size: Not less than 98% passage through U.S. Standard No. 325 mesh sieve (45 μm) as defined in AMS 3044. The typical range of particle sizes is from 1 to 25 μm , with an average particle size of 8 μm (volume distribution) and 1.5 μm (number distribution).

Sensitivity: MI-GLOW 925 shows a minimum of 8 lines on an AISI 01 Ketos tool steel ring (as defined in SAE AS5282), set on a 1-inch diameter copper bar, magnetized with 2500 A of direct current.

Temperature Limit: 120°F Maximum

Particle Certification: Particles meet all relevant specifications, including but not limited to MIL-STD-1949, AMS 3044, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E. Certification is included with each shipment.

Preparation: MI-GLOW 925 should be used at a concentration of 50-65 oz av. per 100 gallons (3.75 to 5.0 grams/liter) of water. For best results add a small amount of water to the powder and form a slurry prior to addition to the bath.

Concentration Test: The suspension as delivered on the part or billet should be tested for magnetic substance content by the following method at 8-hour intervals or shorter intervals if required by the user. The method of test should be as follows:

1. Run the circulating pump on the test equipment for at least 30 minutes.
2. Fill a 100 ml graduated centrifuge tube as specified in ASTM D96 or equivalent, to the 100 ml mark with suspension directly from the hose or other device used for applying it to the part in an inspection, or from an immersion tank. Demagnetize the suspension if considered necessary and let it stand undisturbed.
3. Read the volume of the precipitate in the graduate. The volume should be 0.1 at 30 min.

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