



Technical Bulletin 201

Mi-Glow[®] Underwater 1

Mi-Glow[®] Underwater 1 is red particles pre-mixed with a powdered Wetting Agent for use in underwater inspection. The particles are used with visible light, black light and blue light. The particles are large for better enhancement of large weld discontinuities. Designed to be used for a variety of underwater inspections, including offshore structural welds, pipeline inspection and ship husbandry.

Properties

Particle Color: Fluorescent Red/Red

Specific Gravity: 0.9 g/ml

Light Source: Daylight fluorescent under visible light sources (recommend ≥ 200 ft candles), fluoresces in black light and blue light.

Particle Size: Not less than 98% passage through US Standard No. 100 (150 μm) sieve. Based on Mass Distribution, typical median diameter is 8.4 μm . Based on Number Distribution, typical median diameter is 1.2 μm .

Sensitivity: Mi-Glow[®] Underwater 1 offers a wide range of sensitivity through its broad range of particle sizes - 1 μm to 100 μm . This sensitivity provides a high probability of detection for fine non-visual discontinuities as well as enhancement of larger discontinuities.

Temperature Limits: 32-120°F (0-49°C)

Shelf Life: Four (4) years, when closed containers are stored in a clean, dry environment away from excessive heat or cold. A Certificate of Shelf Life is available upon request.

Directions for Use

Preparation: It is suggested that Mi-Glow[®] Underwater 1 be added at a concentration of 2 oz. av. Per one gallon (15 grams/liter) of water. The preparation may vary due to customer practice and specific application. The storage reservoir should have mechanical or air agitation to help keep the particles in suspension.

It is recommended that adequate particle concentration for the specific application be checked by use of a magnetic field indicator or by observation of the particles applied to a magnetization device (i.e., electromagnet yoke leg).

When these particles are used in a salt water environment, a fresh batch solution should be made daily to prevent corrosion of the particles.

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