

## **CIRCLE SYSTEMS, INC.**

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## **TECHNICAL BULLETIN #202**

### **MI-GLOW UNDERWATER #528**

MI-GLOW UW #528 was designed for use for a variety of underwater inspections, including offshore structural welds, pipeline inspection, and ship husbandry. Its unique design of being a finer, lighter particle, allow it to remain in suspension better and enhance finer defects. MI-GLOW UW #528 is a combination of water conditioners and fluorescent magnetic particles.

### **PROPERTIES**

Particle Color: Fluorescent orange-red under black light and visible red under white light

Specific Gravity: 0.4 g/ml

Light Source: Daylight fluorescent under white light sources (recommend  $\geq$  200 ft candles), fluoresces in black light

Particle Size: Not less than 98% passage through US Standard No. 325 (45  $\mu$ m) sieve.

Sensitivity: MI-GLOW UW #528 offers the capability of enhancing finer defects with its sieve size. 80% of MI-GLOW UW #528 is less than 15  $\mu$ m in diameter.

Temperature Limit: 120°F Maximum

Preparation: It is suggested that MI-GLOW UW #528 be added to water at a concentration of 2 oz. av. weight to one US gallon of water (15 grams per 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.

Particle concentration adequacy is recommended to be checked by a magnetic field indicator or by observation of 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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