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**Technical Bulletin 182**  
**Sir-Chem<sup>®</sup> Dry Powder 95**

Sir-Chem<sup>®</sup> Dry Powder 95 is a highly refined and bonded green magnetic powder used for dry method magnetic particle inspection. It is designed to be used in visible light, UV-A light and blue light to reveal discontinuities on fabricated components or weldments such as bridges, drill pipes, large tanks and machinery. Sir-Chem<sup>®</sup> Dry Powder 95 possesses a unique characteristic in that discontinuities in visible light are a distinct green and under UV-A light or blue light the discontinuities fluoresce a sharp green. This specially bonded iron based powder is designed to minimize dust and provide clear, sharp discontinuities. The decrease in dust allows for a safer inspection area.

**Properties**

Particle Color: Green/Fluorescent Green

Specific Gravity: 2.5 to 3.0 g/ml

Particle Size: Not less than 98% passage through US Standard No. 80 (180  $\mu$ m) sieve as defined in AMS 3040. The typical range of particle sizes is from 15 to 160  $\mu$ m, with an average particle size of 75  $\mu$ m.

Sensitivity: Sir-Chem<sup>®</sup> Dry Powder 95 shows a minimum of 8 lines on an AISI Ketos tool steel ring (as defined in SAE AS5282), set on a 1-inch diameter copper bar, magnetized with 2500 A of direct current.

Particle Certification: Particles meet all relevant specifications, including but not limited to ASTM E-1444, AMS 3040, MIL-STD-271, NAVSEA 250-1500-1, NTR-1E. Certification is included with each shipment.

Temperature Limits: 250°F (120°C)

Shelf Life: Five (5) 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**

Apply Sir-Chem<sup>®</sup> Dry Powder 95 to the part or structure with a powder spray bulb or powder blower. As the current is being applied, dust the powder over the part. If excessive powder is visible, gently blow the extra powder off.

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