

CIRCLE SYSTEMS, INC.

479 West Lincoln
P.O. Box 1228
Hinckley, IL 60520
Ph.: 815-286-3271
Fax: 815-286-3352
customerservice@circlesafe.com



Technical Bulletin #181 Sirchem® Dry Powder 93

Sirchem® Dry Powder 93 is a highly refined and bonded orange/red magnetic powder used for dry method magnetic particle inspection. It is designed to be used in visible light, black light and blue light to reveal discontinuities on fabricated components or weldments such as bridges, drill pipes, large tanks and machinery. Dry Powder 93 possesses a unique characteristic in that discontinuities in visible light are red and under black light or blue light the discontinuities fluoresce orange. This specially bonded iron based powder is designed to minimize "dustiness" and provide clean, sharp discontinuities. The decrease in dusting allows for a safer inspection area.

Properties

Particle Color: Red/Fluorescent Orange

Specific Gravity: 2.5 to 3.0 g/ml

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

Sensitivity: Sirchem® Dry Powder 93 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 MIL-STD-1949, 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 Sirchem® Dry Powder 93 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.

DISCLAIMER: OUR TECHNICAL ADVICE, INFORMATION AND STATEMENTS GIVEN VERBALLY, IN WRITING OR IN THE FORM OF TEST RESULTS, ARE OFFERED FOR YOUR GUIDANCE WITHOUT WARRANTY. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. IT IS THE USER'S RESPONSIBILITY TO TEST THE SUITABILITY OF EACH PRODUCT FOR HIS INTENDED PROCESS AND APPLICATIONS. OUR GUARANTEE IS LIMITED TO THE CONSISTENT QUALITY OF OUR PRODUCTS.
