

For Wet Method Fluorescent Magnetic Particle Inspection

DESCRIPTION

ZChek-F18 is a dark brown colored magnetic particle powder designed to be fluorescing Bright Yellow-Green under UV Light. ZChek-F18 consists of ultra-high sensitivity particles for detection of very fine discontinuities in Ferromagnetic materials. Using the state-of-the-art encapsulation technology, ZChek-F18 is manufactured to exhibit excellent properties (High permeability, low retentivity, high mobility and optimum particle distribution) required for high sensitive fluorescent MPI process. ZChek-F18 is oil-based powder, hence it needs to be used with ZChek-801 Cart oil. However when added with suitable water conditioner WA9, ZChek-F18 can also be used with water as a carrying medium.

CONFORMANCE / APPROVALS

- ASME B & PV Code, Sec V
- EN ISO 9934-2
- AMS 3044
- ASTM E709
- ASTM E1444/ E1444M

FEATURES

- High Sensitivity
- Excellent Fluorescent Contrast
- Excellent Particle Mobility
- Optimized Particle Size & Particle Distribution



APPLICATIONS

ZChek-F18 is designed to detect medium to very fine, medium and shallow, surface and slightly subsurface discontinuities like inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks, and fatigue cracks in Aerospace and Aviation parts, Nuclear Power, Defense, forgings, castings, auto components (machining cracks, grinding cracks, heat treatment cracks), fabrication, steel making (billets and bars), surface transportation, oil and gas.

TYPICAL PROPERTIES

Color Under White Light	Dark Brown
Color Under Black Light	Yellow Green Fluorescence
Mean Particle Size	6 Microns
Particle Size Range	1-16 Microns
Sensitivity	8-9 (Ketos Ring)
Max. Operating Temperature	49 °C Maximum
Settling Volume	0.1 – 0.4 ml

DIRECTIONS FOR USE

- Use F18 at 1 to 1.25 gram per liter. Run the pump for 15 minutes before testing.
- Check the concentration before use at least once each shift using centrifuge tube.
- Parts should be clean and dry prior to testing.
- The bath must be under continuous agitation
- Using the wet continuous method, the bath is applied to all surfaces of the part. The instant the bath stream is removed from the part the magnetizing current is applied.
- Follow ASTM E1444 for the further processing.

PACK SIZES

- 1/2 Kg pack – Part #224111
- 1 Pound pack – Part #224110



HEALTH & SAFETY

Information on Health & Safety is made available through material safety data sheets and the same can be reviewed through the company's website www.zchem.in.

STORAGE & SHELF LIFE

Bulk packing have a Shelf Life of 5 Years, if unopened and stored as per ZChem recommendations.

Registered Office and Factory

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Disclaimer: We have taken best care to ensure that the information provided in this data sheet is accurate. Our product is guaranteed to conform to the specifications provided. We make no other warranty; hence the liability is limited to replacement of product only.