

## F18 – Fluorescent Powder for Wet Method MPI

### DESCRIPTION

ZChek F18 is a dark brown coloured 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. How-ever when added with suitable water conditioner WA9, ZChek F18 can also be used with water as a carrying medium.

### CONFORMANCE / SPECIFICATION

- ASME B & PV Code, Sec. V
- ASTM E 1444
- AMS 3044
- ASTM E 709
- EN ISO 9934-2

### 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

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

## DIRECTIONS FOR USE

- Use F18 at 1 to 1.25 gram per litre. 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.



## PACK SIZES

- 0.5 kg X 4 Nos-1 Carton box

## 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](http://www.zchem.in).

## STORAGE & SHELF LIFE

Packed Powders have a shelf life of 5 years if unopened and stored as per ZChem Recommendations.

**Manufactured By:**

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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.