



PENETRANT PROFESSOR APPROVED

PRODUCT DATA SHEET

FP-922

Fluorescent Penetrant

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3/09



Met-L-Chek Company manufactures a complete line of penetrants used in the fluorescent (Type 1) and visible (Type 2) dye penetrant inspection process. All Met-L-Chek Company penetrants are qualified to AMS-2644E and are sold under the Met-L-Chek® and Pen-Chek® trademarks. Met-L-Chek Company products are manufactured under license in The Netherlands by NDT Europa.

FP-922 is approved to AMS-2644E as a fluorescent (Type 1); Methods "A", and "C"; sensitivity level 2 water washable inspection penetrant. For Method "C" applications it is used with E-59, E-59A, R-503, and R-504. FP-922 is applied by immersion, spray, or wipe on. It is approved for medium sensitivity aerospace applications

FP-922 is listed on the Qualified Products List for AMS-2644E. It meets the requirements of AMS-2647C, ASME Boiler and Pressure Vessel Code, ASTM E-165, and ASTM E-1417, and for penetrant inspection materials. It is low in sulfur and halogens and is safe for use on all metal surfaces.

Guide to METHOD "A" processing per ASTM E-1417-05

Guide to METHOD "C" wipe off processing per ASTM E-1417-05

- 1. Part must be clean, dry and at a temperature of 4.4°-52°C (40° - 125°F) before penetrant is applied.
2. Apply FP-922 penetrant using spray, immersion, or wipe on.
3. Wait a minimum of 10 minutes; 20 minutes if temperature is 4.4°-10°C (40-50°F).
4. Wash part; water temperature 10°-38°C (50°-100 °F). Water pressure < 275kPa (< 40 psi); if a hydro-air nozzle use limit pressure to < 172kPa (< 25 psi). Distance > 30cm (> 12 inches). Wash time- only long enough to remove surface fluorescence under UV-A (black light) .
5. Dry part; temperature not to exceed 71°C (160°F), time - only long enough to dry surface.
6. Apply dry powder developer D-72A by dusting, or non aqueous developer D-70 by spraying.
7. Wait a minimum of 10 minutes before inspection. Maximum time is 1 hour for form "d" (non aqueous) and maximum 4 hours for form "a" (dry powder). If times are exceeded, clean part and reprocess.
8. Use UV-A illumination of >1000 μw/cm² @ 15 inches (38.1 cm) in a darkened area of < 21 lux visible light (< 2 foot candles).

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2. Apply FP-922 penetrant using spray, immersion, or wipe on.
3. Wait a minimum of 10 minutes; 20 minutes if temperature is 4.4°-10°C (40-50°F).
4. Moisten cloth with E-59, E-59A, R-503 or R-504 and wipe penetrant from surface. Do not spray remover on surface to remove penetrant, as sensitivity will be impaired. Water may be used to wipe FP-922 from the surface, but the surface must be dried before developer is applied.
5. Apply dry powder developer D-72A by dusting, or non aqueous developer D-70 by spraying.
6. Wait a minimum of 10 minutes before inspection.
7. Inspect under UV-A illumination of >1000 μw/cm² @ 15 inches (38.1 cm) in a darkened area of < 21 lux visible light (< 2 footcandles).



FP-922 fluorescent penetrant indications on aluminum aerospace structure

