

Flaw Guide Fluo Penetrant-W

Water Washable Fluorescent Penetrant

Flaw Guide Fluorescent Penetrant W is Water washable Fluorescent Penetrant suitable for detection of extremely fine surface defects which are found in castings, forgings, turbine components, rough as well as machined components in all kinds of ferrous & non ferrous metal working as well as on non porous ceramic materials and all general applications. This type of Penetrant is used to find cracks, laps, porosity etc. in all type of applications. The Penetrant has bright Yellow Green fluorescence and has high flash point and can be used open tanks for dipping process. This Penetrant is not suitable for inspection of plastic components.

The formulation of this product is based on non ionic surface active agents, solvents, Fluorescent dyes and other suitable additives which gives excellent controlled washability over wide range of temperature and variable penetration time. The area coverage of this product is excellent. and is around 25 Sq. M. The desired properties are well controlled to obtain to get most reliable & uniform results during application.

Flaw Guide Fluorescent Penetrant W is operator friendly, non corrosive, Yellow Green liquid with all the desired properties meeting the requirements of most of the International specifications such as ASME (B&PV) Sec V, ASTM-E-165, AMS 2644, ASTM-1417, EN-571-1, IS 3658/12889 for Liquid Penetrant Testing. Halogen & Sulphur contaminants are controlled well below their acceptable limits. Supplied in two grades such as High sensitivity which can detect extremely fine cracks on 0.5 x 10 micron Ni-Cr Panel where as Low Sensitivity grade can detect cracks on 1 x 20 micron Ni-Cr Panel. The buyers may select the grades as per their requirements.

Recommended Test Procedure

- 1.** Pre Cleaning : The surface to be tested is required to be thoroughly cleaned to make free from oil, grease, rust, dirt etc. which can prevent entry of Penetrant in to the defect. It is recommended to use Flaw Guide Cleaner NP however heavy oil or grease, if present on the surface, suitable cleaning process may be selected.
- 2.** Flaw Guide Fluorescent Penetrant W is applied to the surface either by dipping or brushing method and allowed to remain on the surface for period of 10 minutes or for longer period, if required by the specification or pre decided procedure designed for respective component under test. In case of dipping process, the job may be dipped into the tank filled with Water Washable Penetrant and the penetrant is allowed to drain for 10 to 15 minutes. The recommended surface temperature of the job to be between 5 to 40 Deg. C. In case of lower temperatures, the penetration time i.e. Dwell Period may be suitably increased to take care of increase in viscosity of Penetrant material on the surface of the job.
- 3.** In case of Water washable process, the Penetrant is to be removed by water spray at ambient temperature between 50 Deg F to 100 Deg F at pressure recommended by the specification. The component is then dried suitably by hot air drying or by cloth
- 4.** Apply Flaw Guide Developer GP/NP (Non Aqueous Developer) uniformly by spraying. The developer helps to blot the Red Penetrant liquid in the defect & also provide white background to maximise the sensitivity. If recommended, Powder Developers or Water Base Developers can also be used instead of Non Aqueous Developer. Aqueous developers are applied prior to drying however dry powder and non-aqueous developers are applied after

drying. Dry Developer powder is free flowing light weight and can be applied by dusting, dipping, spraying or by puffer. Aqueous developers are applied by Spraying or by dipping

- 5.** Inspect the components under test after 7 minutes of application of Developer by using Black light of wavelength of 365 nm and note the defects, if any. In case of Water base Developers the component is required to be dried suitably prior to inspection. The Black light and Day light intensity during inspection need to be as recommended by the specification so as to view the defects with highest efficiency.
- 6.** Post cleaning may be carried out by removing the residue of Developer by wiping with cloth and subsequently by water / detergent wash. The residue of Penetrant can be removed by suitable oil degreasing procedure, if required.

Packing : This product is supplied in 20 or 50 ltr containers