

Flaw Guide Red Penetrant-W

Water Washable & Solvent Clean Type Red Penetrant
(Approved by NPCIL of India)

Flaw Guide Red (Visible) Penetrant W is a Water washable & solvent removable colour contrast penetrant suitable for detection of extremely fine surface defects which are found in castings, forgings, welds in all kinds of ferrous & non ferrous metal components as well as on non porous ceramic materials and for all general applications. This product is also approved by Nuclear Power Corporation of India Ltd for application to nuclear components. The Ionic Halogens are controlled well below 25 ppm & Total Sulphur below 0.01% to meet the special requirements of NPCIL This Penetrant is not suitable for inspection of plastic components.



The formulation of this product is based on Petroleum oils, Oil soluble red dyes and other suitable additives including non ionic surface active agents which gives excellent controlled washability over wide range of temperature and variable penetration time. The desired properties are well controlled to obtain to get most reliable & uniform results during application.

Flaw Guide Red Penetrant W is operator friendly, non corrosive, Dark Pink Red Oily 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, EN-ISO 3452-2 (Sensitivity Level 2), IS 3658/12889 and NPCIL for Liquid Penetrant Testing. Halogen & Sulphur contaminants are controlled well below their acceptable limits

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 otherwise can prevent the 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 Red Penetrant W is applied to the surface either by Spraying, 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. The recommended surface temperature of the job to be between 5 to 40 Deg. C. In case of lower temperatures , the penetrant 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 to be removed by water spray or in case of Solvent removable method the Penetrant to be removed by wiping out by lint free cloth and subsequently by cloth soaked with Flaw Guide Cleaner GP/NP. Excessive Cleaning should not be done in solvent clean process since the penetrant entered into the defect should not get removed due to excessive use of solvents which can affect the sensitivity of the test.
- 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.

5. Inspect the components under test after 7 minutes of application of Developer and note the defects, if any. In case of Water base Developers the component is required to be dried suitably prior to inspection. The Day light intensity during inspection need to be as recommended by the specification so as to view the defects properly.
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 desired.

Supplied in 550 ml. capacity Aerosol Cans and 1, 5 and 20 ltr. containers