

# Flaw Guide Red Penetrant-NP

(Approved By NPCIL of India for Testing of Nuclear components)

Flaw Guide Red (Visible) Penetrant NP is solvent removable colour contrast penetrant suitable for detection of extremely fine surface defects which are found in castings, forgings, welds etc. in all kinds of ferrous & non ferrous metals as well as on non porous ceramic materials. This Penetrant is not suitable for inspection of plastic components. This product is approved by Nuclear Power Corporation of India Ltd for safe 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



The formulation of this product is based on Petroleum oils, Oil soluble red dyes and other suitable additives. The desired properties are well controlled to obtain reliable & consistent results during application.

Flaw Guide Red Penetrant GP 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.

## Recommended Test Procedure

1. Pre Cleaning : Clean The surface thoroughly by Flaw Guide Cleaner to free from oil, grease, rust, dirt etc. which otherwise may prevent entry of the Penetrant in to the defect. For excessive oil or grease, suitable cleaning process may be used.
2. Apply Flaw Guide Red Penetrant NP either by Spraying, dipping or brushing method and allowed to remain on the surface for minimum period of 10 minutes. The recommended surface temperature of the job to be between 5 to 55 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. Remove the Penetrant by wiping the surface with lint free cloth and subsequently by cloth soaked with Flaw Guide Cleaner NP. Excessive Cleaning to be avoided which otherwise can affect the sensitivity of the test.
4. Apply Flaw Guide Developer NP (Non Aqueous Developer) uniformly by spraying. The developer adsorbs the Red Penetrant liquid which has entered in the defect & show the red defect indications, if any. The bright white background provide contrast to enhance the visibility and hence the sensitivity. Powder Developers or Water Base Developers can also be used instead of Non Aqueous Developer, if recommended.
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.

Supplied in 550 ml. Aerosol Cans & 1,5,20 ltr. containers suitably packed in Corrugated Box