



WC Series DPT

Non Destructive Testing Aides

Liquid Dye Penetrant Method – As per IS /RDSO/MIL & ASME Specifications

Product Description

ASV® WC series liquid Dye Penetrant Test systems are designed for non destructive inspection testing of surface flaws.

In this system, the test surface or object is coated with a colored visible dye solution post removal of which a white contrast blotting developer is applied which blots the dye solution against the white background and imperfections and flaws on the surface are detected red spots or red lines.

It consists of:

1. ASV® WC 1 Cleaner & Penetrant Remover
2. ASV® WC 2 Red Penetrant
3. ASV® WC 3 Developer

Applications

- Non destructive inspection of materials, parts, assemblies, equipment, surfaces or structures.
- Detection of surface flaws, cracks, surface porosities, welded seams
- Non destructive testing of pipes, tanks, sheet metals, gears, dies, pressure vessels, boilers, heat exchangers
- Testing inspection of cracks and folds in castings,
- forgings, ceramics

Benefits

- Detects surface defects up to 1 micron width x 30 micron depth on standard Ni-Cr Test panels.
- Extremely low content of sulfur and chlorine.
- Convenient and economical technology without the need for costly and sophisticated equipment.
- Aerosol packs provide a convenient, easy, speedy and effective medium.
- Free from CFC's, chlorinated solvents and do not contain any harmful ozone depleting substances or chemicals.
- As per RDSO specifications M&C/NDT/105/2001 (Effective April 2001)
- Meet and confirm to Specifications / Requirements of MIL-I-25135 / IS 3658 (1981) / ASME Code Section V

Directions for Use

Step 1: Cleaning

The surface must be clean, degreased and completely dry. All previous contaminants like grease, oil, rust, dirt, dust must be removed. Pre-clean the parts or surface to be checked with ASV® WC 1 Cleaner & Penetrant Remover Spray. Spray liberally and allow parts to soak. If required, wipe with an absorbent cloth and dry completely.

Step 2: Red Dye Penetrant

Shake can of ASV® WC 2 Red Penetrant and spray light even coats on the surface. Allow to remain on the surface for around 10-20 minutes to soak.

Removal of Excess Red Penetrant

Pre-moisten a cloth with ASV® WC 1 Cleaner & Penetrant Remover and wipe the surface to remove the excessive penetrant.

Step 3: Development

Shake can of ASV® WC 3 Developer till rattling noise of ball from inside the can is audible. Spray on the surface by holding from a distance of 8-10 inches in light and even coats. Allow 5-10 minutes to develop so that imperfections are visible. Cracks, pores and faults will appear outlined in red as spots or lines against a white background.

Technical Information

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Technical Properties

Property	WC 1 Cleaner	WC 2 Red Penetrant	WC 3 Developer
Type	Solvents	Liquid dye	White solids suspension
Color	Clear	Red liquid	White liquid
Density	0.75-0.85	0.80-0.90	0.82-0.92
Flash Point	-16°C (aerosol)	-16°C (aerosol)	-16°C (aerosol)
Odor	Solvent	Mild	Solvent
Solubility in Water	Negligible	Water washable	Nil
Propellant	Hydrocarbon	Hydrocarbon	Hydrocarbon

Available Packaging

- 500 ml aerosol spray
- 1 liter, 5 liter container

General

Use in well ventilated areas. Avoid continuous breathing of vapor and spray mist. In closed areas or areas with poor ventilation, use respiratory protection. For complete details on safety, short and long term exposure, refer to this product's safety data sheet (SDS).

Disposal

All used and unused product should be disposed of in accordance with state regulations.

Shelf Life

Bulk - 12 months from date of manufacture in sealed condition
 Aerosol - 24 months from date of manufacture

Handling

Read instructions on the container label of the product before use. The product safety data sheet (SDS) contains the relevant information regarding personal protective equipment, safe use, physical and health hazards. Safety data sheet is available from ASV or your local ASV distributor.

Limited Warranty

The information and data contained in this sheet is accurate to the best of our knowledge or is obtained from sources, tests or experiences believed by us to be reliable and accurate. User is responsible for determining whether recommended ASV® product is fit for a particular purpose. All products should be tested for suitability on a particular application prior to actual use. We make no representations of any kind. Data offered without warranty.