

Red dye penetrant

Scope

The ARDROX 996PB aerosol process provides an effective, portable method of flaw detection. It consists of ARDROX 996PB red dye penetrant, ARDROX 9D1B developer and a solvent penetrant remover. Depending on the preferred flash point and evaporation rate, the penetrant remover can be ARDROX 9PR5, ARDROX PR1, ARDROX 9PR50 or ARDROX 9PR70.

The ARDROX 996PB Flaw Detection Process is used as a local inspection method to find cracks, porosity and similar surface discontinuities in all types of metals, certain ceramics and plastics. It has wide uses in the general engineering and aerospace industries, particularly where large structures are encountered, or where immersion methods would be uneconomical or impossible.

ARDROX 996PB contains low levels of sulphur, halogen and alkali metals. Batch certification is available on request.

Chemicals required

ARDROX 996PB red dye penetrant

ARDROX 9D1B developer

ARDROX penetrant remover

Method of use

The process consists of the following stages:

1. Ensure that the surface to be inspected is free from rust, scale, carbon, paint, oil or grease. Clean area to be inspected with ARDROX penetrant remover. The surface should be between 5 - 40°C before the application of ARDROX 996PB penetrant.
2. Apply ARDROX 996PB to the area to be inspected and allow the penetrant to remain on the surface for 10 - 30 minutes. Remove as much as possible of the excess penetrant by wiping with a clean cloth or tissue. Remove the remaining excess penetrant with a cloth or tissue, moistened with ARDROX penetrant remover. Do not spray the penetrant remover directly onto the penetrant.
3. Spray a thin even film of ARDROX 9D1B onto the surface.
4. Inspect for coarse defects immediately and leave for at least 10 minutes before inspecting for fine defects. Inspection should be carried out in daylight or good artificial light. Cracks, fold or cold shuts are revealed as red lines and porosity as a series of dots.

Effects on materials

When the ARDROX 996PB process is used in the prescribed manner, no significant corrosion is likely to occur. They may, however, have a softening or swelling effect on certain plastics and rubbers. Intending users are recommended to check their requirements in this respect.

Technical information

Appearance:	Dark red liquid.
Density:	0.86 g/ml at 20°C
Product Flash Point:	> 93°C

These are typical values only and do not constitute a specification.

Equipment materials

Equipment/tanks should be constructed of stainless steel.

Safety guidance

Before operating the process described it is important that this complete document, together with any relevant Safety Data sheets, be read and understood.

General information

Chemetall PLC supplies a wide range of chemical products and associated equipment for cleaning, sanitising, descaling, paint and carbon removal, metal protection and non-destructive testing. Sales Executives are available to advise on specific problems and applications.

Labour and environmental protection

All local and national regulations on the transport, storage, use and waste treatment of chemicals in concentrated or diluted form and as working solutions must be obeyed.

Further specific information on the products can be found in the EC Safety Data Sheets supplied. The user should also pay strict attention to information and hazard symbols shown on product labels.

Waste disposal

All waste waters must be treated in accordance with national legislation and local regulations prior to discharge to the sewer.

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