

Scope

This penetrant system for flaw detection consists of three aerosol products which are used in a particular process sequence to reveal surface defects in metallic and non-metallic materials. It consists of ARDROX P6R Red Penetrant, ARDROX 9D1B Developer and a solvent penetrant remover.

Depending on the preferred flash point and evaporation rate the solvent penetrant remover can be ARDROX 9PR5, ARDROX PR1, ARDROX 9PR50A or ARDROX 9PR70.

ARDROX Overchek Developer can be used as the developer to view the components under ultra violet light. This gives a higher sensitivity system than with conventional colour contrast penetrants.

These products have been specially formulated to provide a high quality penetrant inspection process which is environmentally acceptable.

Batch certification is available on request.

Chemicals required

ARDROX P6R Red Penetrant

ARDROX 9D1B Developer

ARDROX solvent penetrant remover

Method of use

The following process sequence illustrates the recommended method of use:

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 solvent remover.
2. Apply ARDROX P6R Red penetrant to the area and allow the penetrant to remain on the surface for 10 - 30 minutes. The excess penetrant can then be removed either by spray washing the surface with water or by wiping off the penetrant with a cloth moistened with ARDROX solvent remover. Do not spray the solvent remover directly onto the surface. If water has been used dry the surfaces by a clean air blast or in an air re-circulating oven at 60 - 80°C.
3. Apply an even coating of ARDROX 9D1B developer to the surface. Allow to stand for 10-30 minutes.
4. The surface can now be inspected for any defects in good daylight or good quality artificial light, when defects will appear as red indications against a brilliant white background. Where defects are difficult to interpret or where higher sensitivity is required use ARDROX Overchek Developer and inspect under ultraviolet light. The defects will appear as black indications against a bright fluorescent background.

Effects on materials

No significant corrosion is likely to be encountered when the products are used in the prescribed manner.

Technical information

Appearance:	Dark red liquid.
Density at 20°C:	0.98g/ml.
Flash Point:	>210°C (Pensky Marten Closed Cup.)

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

Store in a cool, dry place, away from sources of ignition.

Equipment materials

Equipment/tanks should be constructed of 316 or 320 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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