Colour Contrast / Fluorescent Penetrant

1 General Description

Ardrox® 9VF2 is a red dye penetrant in accordance with EN ISO 3452 Part 2, Type I, which can be removed by water or solvents – and a fluorescent penetrant in accordance with EN ISO 3452 Part 2 Type III. It corresponds to the requirements of ASTM and ASME.

Ardrox® 9VF2 is a high sensitivity, azo-dye free penetrant which does not contain any aromatic hydrocarbons. The product has good removability characteristics and offers the highest sensitivity level according to EN ISO 3452 Part 2. Ardrox® 9VF2 can also be viewed with an ultraviolet light to give enhanced indication of the defects.

Ardrox® 9VF2 is used in non-destructive testing for forged parts, welds, castings etc
Ardrox® 9VF2 is used together with the Ardrox® range of cleaners and developers.

Conformances:

✓ EN ISO 3452-2	Type III, Level 2
✓ ASME Boiler & Vessel Code	Section V, Article 6
✓ AFCEN	RCC-M

Ask your Chemetall representative for a complete list of approvals

2 Physical and Chemical Properties

Property	Unit	Typical Value
Appearance	-	Clear bright fluorescent red liquid
Density	g/ml	Approx. 0,92 @ 20 °C / 68 °F
Flash point	-	> 94 °C / 201 °F

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

3 Method of use

3.1. Pre-Cleaning

Clean part with e.g. Ardrox® 9PR5, 9PR50 or 9PR88 before applying Ardrox® 9VF2 penetrant. Apply cleaner to the part and wipe clean with cloth. Surface has to be free of grease, oil and dirt. Allow part to dry before applying penetrant.

3.2. Penetrant Application

Apply a thin even film of Ardrox® 9VF2 penetrant to cover test area. Allow penetrant 10 – 30 minutes penetration time before removing.

3.3. Penetrant Removal

Remove excess surface penetrant with clean cloths, pre-moistened with cleaner (e.g. Ardrox® 9PR5, 9PR50 or 9PR88). Alternatively, removal can be effected by gentle water spray or by rinsing with water. DO NOT flush surface with cleaner as sensitivity will be impaired. Repeat procedure until surface penetrant has been removed.

3.4. Developer

Shake developer (e.g. Ardrox® 9D1B or Ardrox® NQ1) thoroughly. Spray thin, even developer film over area to be inspected (spraying distance 20 – 30 cm). Allow 10 – 30 minutes developing time before evaluation. Optionally, evaluation may be made under UV-light.

Attention:
The procedure above is a recommendation only. Please respect the relevant rules and specifications for your applications.

4 Effects on materials

Ardrox® 9VF2 has no effect on most common materials of construction. It is safe to use on steel, aluminium, copper, magnesium and cadmium plate. Some plastics and rubbers may be softened by contact with this material hence it is advisable to check before using specific grades of these.

5 Shelf Life

The shelf life is 3 years from date of manufacture.

6 Storage

Store in a cool place, with protection from freezing conditions.

7 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.

8 Waste release

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

9 General information

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

Issue 3 of July 4, 2016

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