

ARDROX[®] 9D75

WATER SOLUBLE DEVELOPER

1 Description

Ardrox[®] 9D75 is a Form b water soluble developer. It is a free flowing, chromate-free white powder. When dissolved in water at the recommended concentration, it is an effective form b developer for Type I (fluorescent) dye penetrants.

When dried, Ardrox[®] 9D75 produces a uniform white porous film that is easily removed from the part in post cleaning by a water spray rinse. Once the developer bath has been made up, no agitation is necessary as Ardrox[®] 9D75 forms a stable, completely water-soluble solution.

Approvals

✓ SAE AMS 2644
Ask your Chemetall representative for a complete list of approvals

2 Physical and chemical properties

Property	Ardrox [®] 9D75
Appearance	White granular powder
Bulk Density	0.53 g/m ³ // 33 lbs/cu.ft.
Solution Appearance	Clear liquid
Bath pH	11.8 ± 0.5

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

3 Preparation

Ardrox[®] 9D75 is mixed with water at a concentration range of 120 to 240 g/L (1 to 2 pounds per gallon). Fill the immersion tank with the appropriate amount of water. Heated water (50 °C / 120 °F) dissolves Ardrox[®] 9D75 powder faster. Slowly mix in the specified amount of Ardrox[®] powder and stir until it is completely dissolved. If de-wetting occurs, increase the concentration or change the bath. Excessively high concentrations can create thick developer films which may blur or hide fine indications.

4 Application

Ardrox[®] 9D75 application methods include spray, immersion, or flow-on. For best results, apply minimal contact time between the developer and the part. If using immersion, take care to not contaminate the developer bath with the penetrant. When using spray applications, avoid using excessive pressure because it will produce foam and form irregular coatings, which affect sensitivity.

Dry in a forced air oven at 60 to 70 °C (140 to 160 °F). After drying, wait 7 to 10 minutes before inspecting the part. As an alternative to drying parts with heated forced air, immerse the parts in a heated (63 to 70 °C / 145 to 155 °F) solution bath of Ardrox[®] 9D75. Use the same bath concentration as an ambient temperature bath.

5 Bath maintenance

Concentration of Ardrex[®] 9D75 shall be monitored as water will evaporate, especially in the case of a hot application. To measure the concentration of Ardrex[®] 9D75, use a hydrometer and determine the specific gravity of the solution.

g/L	Pounds per gallon	Specific Gravity at 21°C / 70°F
60	0.50	1.022
120	1.00	1.040
180	1.50	1.058
240	2.00	1.077
270	2.25	1.085

Water loss can be reduced by covering the tank when not in use, insulating the sides of the tank to protect against elevated temperatures or protecting the exposed surface of developer from drafts/air currents by raising the sides of the tanks.

6 Effects on materials

Use stainless steel tank for the immersion developer tanks

7 Storage

Store in a dry place. Ensure that containers of Ardrex[®] 9D75 are sealed to avoid the ingress of any moisture. Shelf life is 36 months.

8 Labor and environmental protection

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

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.

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 advise on specific problems and applications.

The above details have been compiled to the best of our knowledge on the basis of tests and research work and with regard to the current state of our practical experience. This technical product information is non-binding. No liabilities or guarantees deriving from or in connection with this leaflet can be imputed to us. Statements relating to possible uses of the product do not constitute a guarantee that such uses are appropriate in a particular user's case or that such uses do not infringe the patents or proprietary rights of any third party. The reproduction of any or all of the information contained in this leaflet is expressly forbidden without Chemetall's prior written consent.

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