

Penetrant Remover / Hydrophilic Emulsifier

1 General Description

Ardrox® 9881 is a hydrophilic type emulsifier used for the removal of the new Ardrox® 981x series of post-emulsifiable, fluorescent penetrants (Method D). It is to be diluted in water then applied by immersion, spray or foam-on method.

The use of Ardrox® 9881 minimizes background fluorescence on part surfaces, as well as bleed out of excess penetrant from hollow parts. It is economical to use because it can be applied at 10% by volume for immersion and less than 5% for spray and foam-on applications.

Ardrox® 9881 is a blend of biodegradable surface active agents, coupling solvent and corrosion inhibitors. It is low in sulphur, halogen and alkali metal content. In addition to that, Ardrox® 9881 shows an improved odor and bath stability and it is designed to meet the latest surfactant regulations.

Approvals:

✓ ASME	Boiler & Vessel Code, Section V, Article 6 (conformance)
✓ CEN ISO	EN ISO 3452-2 (conformance)
✓ CFM International	as per AMS 2644
✓ GE Commercial Engines	as per AMS 2644
✓ Pratt & Whitney	PMC 4355-6 & FPM Master Supplement
✓ Rolls-Royce	OMat 621K & CSS232
✓ SAFRAN Group	IN 5000
✓ SAE	AMS 2644

Ask your Chemetall representative for a complete list of approvals

2 Physical and Chemical Properties

Property	Unit	Typical Value	Test Method
Appearance	-	Clear, orange liquid	-
Density at RT	g/ml	1.01	-
ph at 100 g/l	-	8.2 – 9.2	-

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

3 Operation Procedure

The procedure described below is recommended for general use. Where relevant, the process specifications of the approving authorities must be closely followed.

After suitable pre-cleaning, penetrant application and the necessary penetrant contact time, the components are initially given either a spray or air agitated water rinse (for approx. 1 minute) before they are immersed in the Ardrox® 9881 solution. The recommended concentration is up to 10% by volume in water (Ardrox® 9881 is approved to AMS 2644 to a maximum of 10 % concentration).

The components should be completely immersed, withdrawn and allowed to drain. The total contact time should be determined experimentally and will be dependent on the material and its surface finish. The time should be adjusted to the shortest possible contact time to give the minimum acceptable level of background. The contact times below serve as a guide only.

Immersion time: 30 sec. to 90 seconds
Drain time: 30 seconds

Drainings may be returned to the Ardrox® 9881 tank. After a suitable period of contact, the components are thoroughly rinsed either by spray rinsing or using air agitated water for the minimum period needed to give an acceptable level of background fluorescence.

The components should then be thoroughly dried in an air-circulating oven at a temperature between 50 – 60 °C using the minimum drying time before application of the developer (15 minutes maximum).

For touch-up applications Ardrox® 9881 is also available in aerosol cans. As ready-to use product the concentration is 5%.

4 Bath maintenance

The concentration of the Ardrox® 9881 emulsifier solution should be measured and maintained with the use of a refractometer specifically calibrated using known dilutions of Ardrox® 9881.

5 Effects on Material

When Ardrox® 9881 is used in the prescribed manner, no significant corrosion is likely to be encountered on commonly used metals.

Equipment/tank should be constructed of stainless steel.

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 October 5, 2015

Head Office
Chemetall GmbH
Trakehner Straße 3
60487 Frankfurt am Main
Germany

T +49 69 7165 0
F +49 69 7165 3018
surfacetreatment@chemetall.com
www.chemetall.com

® registered trademark.

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.

© Copyright 2013 Chemetall GmbH Frankfurt am Main, Germany.