

High Sensitivity Black Magnetic Ink

1 General Description

Ardrox® 800/3 is a ready-to-use high sensitivity black magnetic ink consisting of black iron oxide with a controlled, fine particle size, mineral oil and a suspending agent in a high flash, low aromatic petroleum distillate. Ardrox® 800/3 is used for revealing surface and near surface defects in ferro-magnetic materials.

2 Physical and Chemical Properties

Property	Unit	Typical Value	Test Method
Appearance	-	Liquid suspension of black powder	-
Flash Point	°C	> 93	ASTM D93
Concentration	ml per 100 ml of ink	approx. 2.0	AMS 3041E

3 Chemicals Required

Ardrox® 800/3, Ardrox® 8901W

4 Operation Procedure

Heavy deposits of grease, rust, scale and paint should be removed prior to inspection. The component is then magnetized and Ardrox 800/3® applied either by dipping, flowing or spraying.

The component is inspected for defects in daylight or good artificial light. Defects will show as a collection of black particles. In areas where it is difficult to see the black indications e.g., on oxidized or other dark surfaces, contrast may be greatly improved by applying a coating of Ardrox® 8901W white background lacquer prior to application of the magnetic ink. Ardrox® 800/3 is used as supplied without any dilution. Containers of Ardrox® 800/3 must be thoroughly shaken to disperse the settled ink before use.

Approvals:

✓ Rolls Royce CSS 231, OMAT 608D

Conformances:

✓ ISO-9934-2
 ✓ AMS 3041
 ✓ AMS 3043
 ✓ Rolls Royce RRP 58004
 ✓ ASME Code V, Article 7
 ✓ RCC-M

5 Effects on Material

When ARDROX[®] 800/3 is used in the recommended manner, no significant corrosion is likely to be encountered on any metal.

Some thermoplastics and certain rubbers may be softened or swollen with prolonged contact and intending users are advised to check the compatibility of such materials with the product.

6 Safety Guidance

Before operating the process described it is important that this complete document, together with any relevant Material Safety Data Sheets, is read and understood. For transport, storage, use and waste treatment of chemicals in concentrated or diluted form as well as bath solutions, the appropriate local legislation must be followed. Further specific information on the products can be obtained from the relevant Safety Data Sheets. The user should also pay strict attention to information and hazard symbols shown on product labels.

Version 09-18-2013
replaces version from August 2002

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.