

Chemetall
expect more⁺



ARDROX[®]

**Non Destructive Testing
Products & Equipment**

Chemetall (Australasia) Pty Limited is an Australian based company producing a wide range of speciality chemical products in their manufacturing plants in Sydney & Melbourne.

The company has been in existence for 50 years, originally manufacturing and marketing the Ardrox range of products for descaling, paint stripping, corrosion protection, cleaning and non destructive testing.

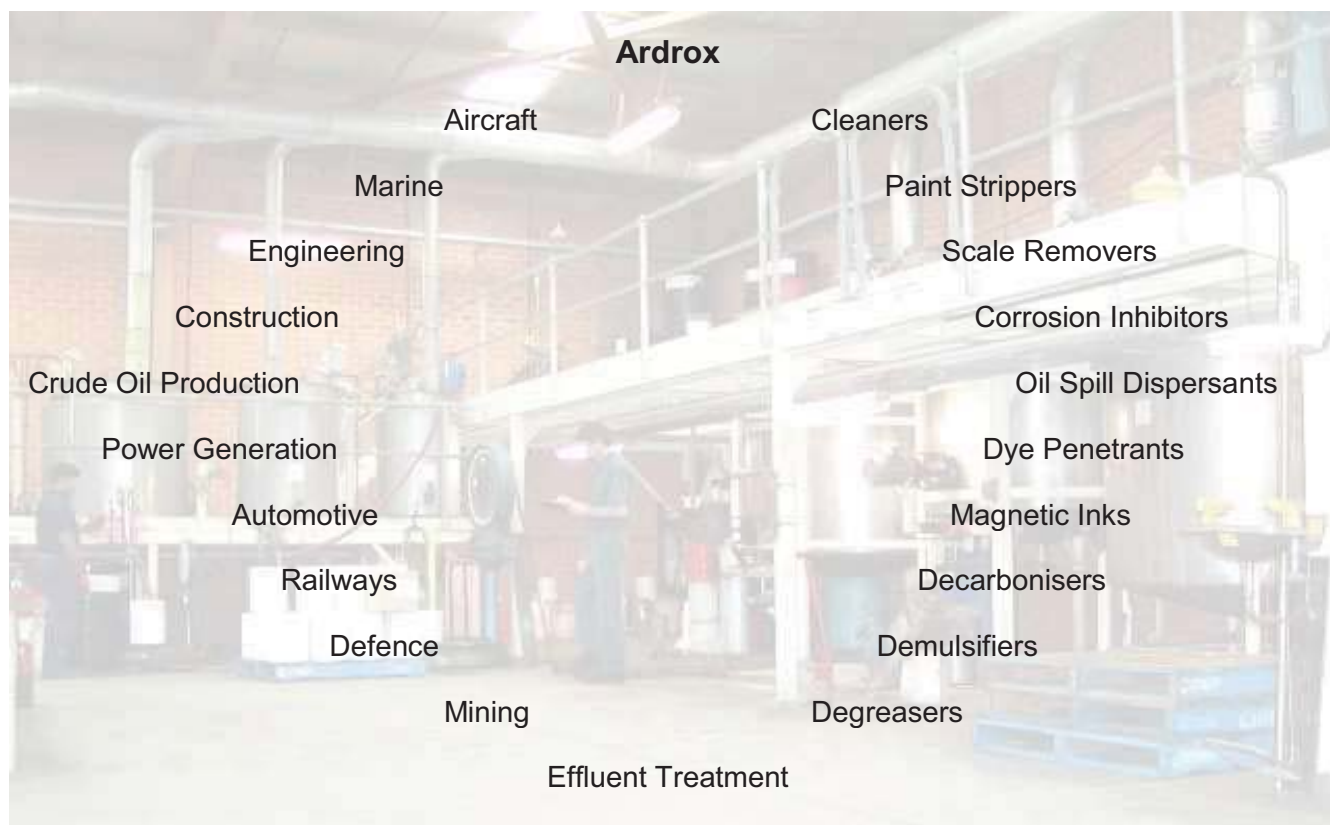
Chemetall (Australasia) Pty Ltd's main activities are in Surface Treatment and Aerospace. We are involved in products and processes for the chemical surface treatment of metals to achieve improved quality, paint adhesion and corrosion resistance and for improvement of cold forming and wear resistance. Non-destructive testing (NDT) is a major area of interest and we are also active in products for transport, sanitation and general industrial applications.

The Ardrox trade name is synonymous with the aerospace industry, offering reliable solutions for the most demanding application for aircraft maintenance and overhaul.

Other brands currently owned and manufactured by Chemetall includes Oakite, Ardrox AV (formerly Dinitrol) & Naftoseal

INDUSTRY

PRODUCTS



Chemetall (Australasia) Pty Limited offers a wealth of experience and technical expertise in the application of this comprehensive product range to the diverse problems encountered in today's industry.

This brochure contains a brief overview of the NDT products and equipment available from Chemetall for magnetic particle and dye penetrant inspection processes. Technical data sheets and material safety data sheets, where applicable, are available for each product on request.

PENETRANT INSPECTION

Chemetall (Australasia) Pty Limited is listed as an approved manufacturer of Ardrex Penetrant Inspection Materials in QPL-AMS-2644.

The systems are approved by USAF, Ministry of Defence (UK) and conform to ASME Boiler and Pressure Vessel Code. They are also approved and qualified by national defence specifying authorities, aircraft engine and airframe manufacturers.

All the products listed in this section are Qualified to AMS 2644 where shown and are, therefore, acceptable for use when working to ASTM E 1417 and AS 2062.

Penetrant inspection is used to reveal defects which are open to the surface in metals, ceramics and certain plastic materials.

SELECTION OF PENETRANT

Penetrants are classified in AMS 2644 by type, application and sensitivity. The selection of an appropriate process is generally determined by:-

- a. The size of defect to be detected.
- b. The nature of the surface.
- c. Specification requirements

SOLVENT REMOVABLE PENETRANTS

The water washable and post emulsifiable penetrant materials listed below are also designed and approved for use as solvent removable and can be used for local inspection with Ardrex 9PR50C Remover and Precleaner and Ardrex 9D1B Non Aqueous Wet Developer.

ARDROX NO.	DESCRIPTION	AMS 2644 CLASSIFICATION
WATER WASHABLE PENETRANTS		
907PB	Red Dye Penetrant for use in general engineering applications. Available in bulk or aerosol.	Type II Methods A & C
9704	Medium Sensitivity Fluorescent Penetrant for use on castings and machined components. (replaces Ardrex 970P24)	Type I Level 2 Methods A & C
9705	High Sensitivity Fluorescent Penetrant. Available in bulk or aerosol. (replaces Ardrex 970P25)	Type I Level 3 Methods A & C
970P26E	Ultra High Sensitivity Fluorescent Penetrant	Type 1 Level 4 Methods A & C

ARDROX NO.	DESCRIPTION	AMS 2644 CLASSIFICATION
------------	-------------	----------------------------

POST EMULSIFIABLE PENETRANTS

9812	Medium Sensitivity Fluorescent Penetrant. (replaces Ardrex 985P12)	Type I Level 2 Methods B, C & D
9813	High Sensitivity Fluorescent Penetrant. Available in bulk or aerosol. (replaces Ardrex 985P13)	Type I Level 3 Methods B, C & D
9814	Ultra High Sensitivity Fluorescent Penetrant. (replaces Ardrex 985P14)	Type I Level 4 Methods B, C & D

PENETRANT REMOVERS

9881	Hydrophilic Emulsifier Concentrate used at 10% dilution in water with 98 Series Penetrants.	Type I Levels 1,2,3 & 4 Method D
9PR50C	Solvent Remover and Precleaner used as supplied, non halogenated, rapid drying. Available in Aerosol.	Class 2
9PR70	Solvent Remover and Precleaner used as supplied, non halogenated, slow drying.	Class 2
9PR50A	Solvent Remover and Precleaner Impregnated Wipes, non halogenated, fast drying	Class 2

DEVELOPERS

9D1B	Non Aqueous, Non Halogenated Wet Developer. Available in aerosols for use with Red or Fluorescent Penetrant.	Form d Type I & II
9D2	Aqueous Wet Suspension Developer for use with Red Dye Penetrant. DTD 929.	
9D4A	Dry Developer Powder for use with Fluorescent Penetrant.	Form a Type I Systems

IN SERVICE TESTING

Chemetall (Australasia) Pty Limited provides in service testing of Ardrex penetrants to the applicable requirements of ASTM E 1417. Written reports on the results are provided. A service is also offered for the recalibration, where applicable, of various pieces of equipment shown in this brochure. Certificates are provided which are traceable to national standards.

MAGNETIC PARTICLE

Unlike penetrant inspection materials which are selected on sensitivity and background, the various ARDROX Magnetic Inks are selected primarily on the basis of their colour contrast with the component and the ease of use. The sensitivities of the various coloured and fluorescent inks being somewhat similar

ARDROX NO.	DESCRIPTION
800/3	High Sensitivity Black Magnetic Ink in a solvent carrier – ready to use. AMS 3041C, ASME Boiler and Pressure Vessel Code Section V. Also available in aerosol. AMS 3043B.
800/40	High Sensitivity Black Magnetic Ink, water based concentrate. Particles meet AMS 3042C and ASME Boiler and Pressure Vessel Code Section V.
800/51	High Sensitivity Black Magnetic Paste Concentrate. Meets AMS 3041C and ASME Boiler and Pressure Vessel Code Section V on dilution with Base Oil SC2.
800/100	Black Magnetic Powder for use in dry powder form. AMS 3040B.
810/3	High Sensitivity Brown/Red Magnetic Ink in a solvent carrier – ready to use. AMS 3041C, ASME Boiler and Pressure Vessel Code Section V.
810/51	High Sensitivity Brown/Red Magnetic Paste Concentrate. Meets AMS 3041C and ASME Boiler and Pressure Vessel Code Section V on dilution with Base Oil SC2.
810/100	Brown/Red Magnetic Powder, for use in dry powder form. AMS 3040B.
820/100	Grey Magnetic Powder for use in dry powder form.
8500	High Sensitivity Fluorescent Magnetic Powder Concentrate for easy dispersion in solvent and viewing under ultra violet light. AMS 3044D and ASME Boiler and Pressure Vessel Code Section V.
8501	High Sensitivity Fluorescent Magnetic Ink in a solvent carrier – ready to use, for viewing under ultra violet light. AMS 3045C and ASME Boiler and Pressure Vessel Code Section V. Also available in Aerosol. AMS 3046D.
8571	High Sensitivity Fluorescent Water Based Magnetic Ink Concentrate, for viewing under ultra violet light. Particles meet AMS 3044D and ASME Boiler and Pressure Vessel Code Section V.
8901W	Very Rapid Drying White Background Lacquer, for use with non-fluorescing magnetic particle to provide contrast. BS 5044 and ASME Boiler and Pressure Vessel Code Section V.
5319	Solvent Cleaner and Remover for white background lacquer.
Base Oil SC2	High Flash Point, Low Aromatic Base Oil for dispersion of Ardrex 800/51, 810/51 and 8500 to produce a working suspension of magnetic particle. Meets the requirements of AMS 2641 Type II.

www.magneticyokes.com.au - 0288500256