Ardrox® 1280

1 Description

Ardrox® 1280 is a fluoride-free acidic etching/pickling system on a nitric acid basis for magnesium alloys. Especially used for aluminium-free magnesium alloys, such as ZE41 (RZ5), EV31 (Elektron® 21), WE43, WE54, ZEK100 and others.

2 Physical and chemical properties

Property	Typical Value
Appearance:	liquid, colourless
Density (20 °C):	1.19 g/cm³
pH value (concentrate, 20 °C):	approx. 1

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

3 Method of use

Bath temperature:	25 – 35 °C
Treatment time:	0.5 – 3 minutes
Bath make-up:	5 g/l
Application method:	Immersion
Total acid pointage:	2 – 4 Take a 2 ml sample of bath solution, add approx. 50 ml of demineralise Water; add 3 - 4 drops of Test Indicator 186, Titrate with Test Solution 1 (0.1 M sodium hydroxide) until the colour changes from purple to green. 1 ml of Test Solution 1 corresponds to 1 total acid point.
Magnesium content:	< 5 g/l (ICP-MS)
Iron content:	< 50 ppm (ICP-MS)
Bath replenishment:	For each total acid point consumed add 1 g/l of Ardrox® 1280 Make-up.
Visual inspection:	The etched surface should be free from smut and scale after the etching and rinse. In case of the smut (usually black or dark grey powder) the etching time should be decreased. In case of the scale (mainly on the As-Cast surface), the etching time should be increased, but the dimension tolerances must be considered.

The optimum conditions for application may be determined by testing, in co-operation with our technical service group, if necessary.

4 Equipment

Polypropylene, PVC, hard-rubber linings. Any contacts of the working solution with steel shall be minimized to avoid the increasing of iron contamination.

5 Shelf life, storage and disposal

Please refer to the corresponding Material Safety Data Sheets for details on shelf life, storage and disposal.

6 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.

7 General information

Chemetall supplies a wide range of chemical products and associated equipment for cleaning, descaling, paint and carbon removal, metalworking 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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