

## INFORMATION BULLETIN FOR ABILITY'S 'Maxim-Air®' CONCRETE ADMIXTURE



**CONCENTRATED POWDER AIR  
ENTRAINING AGENT (AEA) FOR  
THE MANUFACTURE OF MICRO  
AIR ENTRAINING ADMIXTURES  
USED IN CONCRETE, MORTARS,  
PORTLAND CEMENT ETC**

**TEST FIRST - TRIALS PRIOR TO ACTUAL USE ARE ESSENTIAL.**

'Maxim-Air®' is **concentrated** high purity AEA - **Air Entraining Agent** for concrete in powder form. It is a white powder **only to be used** in Portland cement based concrete, mortars etc in **miniscule** amounts.

The product may be used by liquid concrete admixture and 'mortar plasticiser' manufacturers by dissolving small quantities in water to produce *liquid* AEA ('liquid ball bearings') products.

In manufacturing ready-to-use *powder* AEA products a good method is to dilute the product's strong effects by mixing small amounts with an inert powder extender/filler - for example - marble powder or more preferably pozzolanic diatomaceous earth powder such as Ability's **Diatomite D5** or Ability's **Ground Granulated White Blast Furnace Slag powder** ('silica' flour) or even more preferably Ability's '**abil-spray**' silica fume alternative powder admixture for concrete - all to enable **accurate** dispensing into cement-bound mixes. These may include 'semi-dry mix', no slump concrete product mixes such as machine made concrete masonry blocks, 'wet-mix' slump type cast-in-place pre-mixed concrete mortars and grouts, concrete products and factory compounded dry mix cement based preparations, such as dry mix 'concrete-in-a-bag', specially formulated cement bound repair mortars, AEA cements, tile adhesives etc.

'Maxim-Air®' dissolvable powder concentrate is very potently efficient in introducing **microscopic** air bubbles into

concrete, requiring very **low** dose rates (**only** approximately 0.003% by weight of cement or total cementitious material weight is a suggested starting point amount for your *careful* evaluation).

**A LOW COST, HIGH PERFORMANCE PRODUCT:**

'Maxim-Air®' is a low cost per microscopic air 'bubble' producing product for AEA Portland cement bound concrete, grouts, special mortars. etc. The product is based on alkyl aryl sulphates, which produce in concrete during its mixing with water, ultra tiny, stable air bubbles. These adsorb in a highly stable fashion onto the cement particles in the cement paste phase of wet (plastic) concrete mixes.

The presence of stable, uniformly dispersed and microscopic size air bubbles in most grades and classes of pre-mixed concrete - especially for cast-in-place in situ concrete pavements, can in their plastic wet state considerably improve their workability and pumpability and reduce or eliminate their bleeding as well as to substantially increase their freeze-thaw stability and chemical resistance in the hardened state.

However, as the density of hardened, air entrained concrete or mortar is **reduced** proportionally to the amount of micro voids in the hydrated cement paste their mechanical strengths are reduced as a consequence. Therefore, the cement content in these mixes should preferably be increased by a suitable amount to maintain their hardened mechanical strengths, and associated abrasion and erosion resistance - if required.

The purchaser of 'Maxim-Air®', and/or the user/manufacturer **must** comprehensively evaluate the product at the intended dose rate **in all treated 'Maxim-Air®' cement bound mix designs** and to maintain a concrete's mechanical strengths, to establish the required extra cement content required as well as the **optimum** 'Maxim-Air®' dose rates required in **each** and **every** concrete/mortar mix design - **prior** to their actual use.



IS ANOTHER QUALITY PRODUCT OF  
**ABILITY BUILDING CHEMICALS CO**  
 Subsidiary of Australian Oxides Pty Ltd  
**- A SOLELY AUSTRALIAN OWNED  
 AND OPERATED COMPANY**

**TEST FIRST - TRIALS ARE ESSENTIAL.**

PLEASE DIRECT ALL ENQUIRIES FOR AUSTRALIAN SUPPLY AND **EXPORT** ORDERS TO:

Ability Building Chemicals Co, manufacturers of ultra-fine, high performance UV resistant '**abilox®**' **mineral oxide colouring pigments; additives etc** for all industries; powder based 100% active solids **chemical admixtures** to modify, improve, protect, and decorate concrete and mortars, special long-life, decorative and protective **surface coatings, paints, stains, and treatments** for concrete and other building surfaces, as well as suppliers of insulative, *lightweight but strong* white pigmentable, trowellable or mouldable composite materials called **cemlite®** and **cemlite® HE** in bagged, dry-mix form.

**WAREHOUSE AND OFFICE:**

**(PO BOX 391)**

**133-135 NORTHERN ROAD**

**WEST HEIDELBERG, (MELBOURNE)**

**VICTORIA, 3081, AUSTRALIA**

**PH:**

**(03) 9457 6488**

**INTERNATIONAL PH : +61 3 9457 6488**

**FAX:**

**(03) 9458 4683**

**INTERNATIONAL FAX: +61 3 9458 4683**

**CONTACTS: PETER GRAY - Manager**

**MICHAEL TREACY - Production Manager**

**ROBERT BARBER – Managing Director**

**ABILITY BUILDING CHEMICALS CO**

**- ACHIEVING BETTER CONCRETE**

**- ACHIEVING BETTER COATINGS**

**- ACHIEVING BETTER COLOURS**

Active selling agents and resellers are required in some states of Australia and off-shore. 'Maxim-Air®' is available for export. Why not contact us now for further details of this excellent business opportunity?

⊗ **BUSINESS MOTIVATION:**

Our business is motivated and driven essentially by customer demand and their requirements - not solely by management policy.

⊗ **PLEASE TAKE CAREFUL NOTE THAT:**

This information bulletin, presentation, product labelling and trade name as well as the product formula are the intellectual property of Australian Oxides Pty Ltd.

⊗ **PRODUCTS OF EXCELLENCE:**

Ability Building Chemicals Co strives to produce useful raw materials used in the manufacture of industrial products that last (and last) and when used intelligently according to our recommendations, work dependably, are often capable of imparting great beauty and are the best of their kind.