

**ABILITY'S
'COSMOTRON®' DPU-CA
PARTICULATE DISPERSANT
- FOR QUICKER, MORE
EFFICIENT MIXING &
PARTICLE DE-FLOCCULATION**

EVEN WITH THE BEST OF HIGH SHEAR DISPERSING EQUIPMENT THE COMPLETE DISPERSION OF PARTICULATE POWDERS INTO WATER AND/OR AQUEOUS BINDING MIXTURES IS NOT ALWAYS EASY TO ACHIEVE.

The use of 'COSMOTRON®' DPU-CA rapidly dissolving powder-dispersing aid is highly recommended for use as a *non-foaming* low dose rate particle repelling dispersant for efficiently dispersing many types of fine particle powders in industrial processes involving water based systems.

'COSMOTRON®' DPU-CA reduces the clumping and lumpiness of fine particle solids such as colouring pigments, mineral extenders etc in resin emulsion latices and other water mixtures and their water contents at a given viscosity, ie to result in free-flowing pastes without agglomerates or 'seeds' using less water. This product therefore reduces the viscosity and/or allows the increase of particulate solids in a slurry, suspension or dispersion for a given water content.

'COSMOTRON®' DPU-CA is also used as an efficient *emulsifier, stabiliser, 'wetting', 'suspending' and surface active agent* for manufacturing virtually all water based liquids containing water immiscible liquids or solids such as emulsions or dispersions and is a *sequestering* (separating/depositing) agent *in the dying, water conditioning and other industries.*

'COSMOTRON®' DPU-CA is highly suitable for use in the manufacture of:

- ★ *Particulate pigment dispersions/suspensions in water* – especially for very fine organic powder pigments such as Phthalocyanine Blues and Greens and Carbon Blacks. It is also exceptionally effective for *inorganic* powder pigments such as Chromium Oxide, Red/Yellow/ Black/Brown Iron Oxides, Milori (Iron/Prussian) Blues etc as well as for virtually all filler/extender pigments/minerals – particularly those of very fine particle size.

In many formulations 'COSMOTRON®' DPU-CA works synergistically with the currently popular poly acrylate type dispersants for greater dispersing efficiency. On its own the 'COSMOTRON®' DPU-CA type is weight for weight considered superior to poly acrylate dispersing agents in their dispersing efficiency, performance and their cost effectiveness.

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AUSTRALIAN OXIDES PTY LTD, West Heidelberg, Australia.

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IT IS THE USER'S/PURCHASERS' RESPONSIBILITY TO ENSURE THAT COMPLETE SUITABILITY OF THESE PRODUCTS, FOR ANY USE, BE COMPLETELY CONFIRMED BY THOROUGH PRIOR TESTING AND EVALUATION. THE INFORMATION SUBMITTED IN THIS AND OTHER SPECIFIC PRODUCT PUBLICATIONS IS BASED ON CURRENT KNOWLEDGE AND EXPERIENCE. IN VIEW OF THE MANY FACTORS WHICH MAY EFFECT PROCESSING AND APPLICATION, THIS DATA AND OTHERS DOES NOT RELIEVE PROCESSORS AND USERS FROM THE RESPONSIBILITY OF CARRYING OUT THEIR OWN TESTS AND EXPERIMENTS. NEITHER DO THEY IMPLY ANY LEGALLY BINDING ASSURANCE OF CERTAIN PROPERTIES OR SUITABILITY FOR A SPECIFIC PURPOSE. IT IS ALSO THE RESPONSIBILITY OF THOSE TO WHOM WE SUPPLY OUR PRODUCTS, TO ENSURE THAT ANY PROPRIETARY RIGHTS AND EXISTING LAWS AND LEGISLATION ARE OBSERVED.

USES:

'COSMOTRON®' DPU-CA instantly dissolving powder dispersant may be successfully used in the manufacture of the following:

- ★ Chemical admixtures for concrete and mortars of the high range, super plasticising/super water-reducing types and as a 'booster/modifier' for the normal, typically used Lignosulphonate and/or Hydroxylated Polymer water reducing types – either set retarding, non-set retarding or set accelerating versions.
- ★ Ceramic and pottery products in which it saves fuel energy used in equipment for product drying by increasing clay plasticity, consistency and uniformity to make it more mouldable with *less* water and also allowing an *increase* in the amount of clay for a *given* water content.
- ★ 'COSMOTRON®' DPU-CA powder also improves extrusion processes of plastic clays and *increases* the dispersion and therefore the effectiveness of inherent or added body stain colourants such as oxides of iron and other metals as well as those incorporated into glazes in a given mixing time and degree of mixing 'shear'.
- ★ Cement and/or lime bound and 'kalsomine' type aqueous coatings and virtually *all other* water based paints/coating mixtures, inks etc.
- ★ Mud brick production – with or without a typical 10% strength increasing Portland cement and/or hydrated lime addition – where it allows the use of *less* water for a given consistency.
- ★ In the *manufacture* of Portland, aluminous and other types of cements – for the feedstock in 'Dry Batch' or 'Slurry' kiln processes. Also as a grinding aid for use in the throughput ball mill pulverising process of for example the cement clinker/gypsum mix to produce cements having ideal fineness and particle size distribution.
- ★ In the manufacture and 'jet' milling (micronising) of Titanium Dioxide clinker in making TiO₂ white pigments.
- ★ Non-foaming and low-foaming detergents and cleaners – especially those designed for floor scrubber/cleaning machines. 'COSMOTRON®' DPU-CA is an excellent *booster* for normal liquid detergents/cleaners/laundry mixes etc where it is typically added at about 3-6% by weight of the formulation as a water replacement. As such it more easily lifts and disperses strongly bound dirt particles for greater cleaning efficiency and therefore lower cleaning costs to the user.

'COSMOTRON®' DPU-CA rapidly dissolvable powder dispersant is *also* most suitable for use in:–

- ★ Adhesives of aqueous types particularly those that are coloured with pigments.
- ★ Aqueous carpet backing compounds.
- ★ Drilling muds and oil well cements.
- ★ Fire fighting foams.
- ★ Baked clay brick, pipe and tile production and in other baked clay products where it is typically used at 0.3% by weight of the weight of dry clay (300 gms per 100Kg clay solids). It brightens and strengthens the colouring effect of pigments such as Red and/or yellow Iron Oxides, Manganese Dioxide etc powder colourants at a given dose rate when added separately or that are naturally inherent in the clay.

'COSMOTRON®' DPU-CA also increases extrusion ease with *less* water at a given consistency or degree of plasticity. It therefore potentially reduces the amount of fuel energy needed to drive off the water at the pre-firing stage and reduces breakages due to increased 'green' (unfired) strength of the products as well as resulting in potentially lower kiln shrinkage of the products.

- ★ For improved liquid pipeline transport of industrial aqueous slurries and suspensions (please re-read 2nd paragraph on page 1) in the mining, extraction and other industries.
- ★ In the manufacture of Gypsum plaster wall panel board and other gypsum plaster products.
- ★ In effluent control – as a lignin sulphonate replacement for the *more efficient* separation and collection of protein particles in effluent from the meat and fish processing etc industries.
- ★ Water conditioning technology.
- ★ Factory compounded hydraulic dry powder building product mixes for later use by mixing with water by the user (ie ready-to-use, mix-with-water products) eg:
 - ☑ dry-mix concrete, mortar, cement and/or lime mixes, cement/silica fume compounds etc.
 - ☑ cementitious (polymer resin modified cement bound mixes) such as applied acrylic wall finish plastering/rendering mortars or compounds and 'paint-on' polymer/cement 'renders' and coatings.
 - ☑ cement and/or lime bound ceramic wall and floor tile adhesives and coloured jointing grouts.
 - ☑ low or non-shrink engineering and construction grouts/mortars.
 - ☑ crack fillers, caulks, stopping/levelling compounds and jointing sealants (exterior and interior).
 - ☑ compounded dry Plaster of Paris mixes (using gypsum plaster and/or hydrated lime binders).
- ★ Polymer resin emulsion latex (dispersions) manufacture *and* stabilization eg all acrylic, PVAc, acrylic/styrene co-polymer, SBR (styrene butadiene rubber) latices, etc.
- ★ Wax emulsion manufacture.
- ★ The manufacture of linseed, other vegetable and/or mineral oil emulsions, dispersions and suspensions.
- ★ Alkyd resin emulsions and other coating resin emulsions or moulding/casting resin emulsions/colloidal polymer resin dispersions etc as well as 'easy-water-clean-up' solvent based paints, inks, printers' 'fountain' solutions, other water borne coatings, adhesives etc
- ★ A most efficient aqueous dyestuff dispersant used in the dyeing of textile fibres and fabrics.
- ★ As a grinding aid in the crushing and grinding of industrial minerals. Also in combination with ultra-fine fumed silica as an anti-caking aid for industrial mineral powders, extender and colouring pigments etc.

There are many *OTHER* possible industrial areas of benefit-giving use for Ability's 'COSMOTRON[®]' DPU-CA powder dispersing and grinding aid. Please therefore request our combined product data and specification, free guidance on use, prices, free experimental samples etc. Your enquiries will be welcomed and receive our prompt attention.

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

ABILITY BUILDING CHEMICALS CO
SUBSIDIARY OF AUSTRALIAN OXIDES PTY LTD

- Manufacturers of fine, UV resistant inorganic 'abilox[®]' mineral oxide powder pigments, 'duro[®]' organic and inorganic/organic powder bright, colouring pigment blends, additives etc for industry; chemical admixtures to modify, improve, protect, make lightweight and more insulative and decorate concrete and mortars, a range of specialised, *long-life* high performance surface stains and coatings for concrete and other building surfaces as well as 'cemlite[®]' and 'cemlite[®]HE' lightweight but strong, moulding and applied finish materials.

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PRODUCTS OF EXCELLENCE

Ability Building Chemicals Co

- ACHIEVING BETTER CONCRETE
- ACHIEVING BETTER COATINGS
- ACHIEVING BETTER COLOURS

Active selling agents and resellers are required in some areas of Australia and offshore. 'COSMOTRON[®]' DPU-CA instantly dissolving powder dispersant is available for export. Please contact us now for further details of this excellent commercial business opportunity. Your enquiries will receive our promptest attention.

BUSINESS MOTIVATION:

Our business is motivated and driven by customer demand not necessarily by management policy.

PLEASE TAKE CAREFUL NOTE THAT:

THIS INFORMATION, PRESENTATION, PRODUCT LABELLING AS WELL AS THE PRODUCT FORMULA ARE THE INTELLECTUAL PROPERTY OF AUSTRALIAN OXIDES PTY LTD.

PRODUCTS OF EXCELLENCE:

Ability Building Chemicals Co, subsidiary of Australian Oxides Pty Ltd strives to produce useful products that last (and last) and when used intelligently according to our recommendations, work dependably; are capable of imparting great beauty and which are the best of their kind.

