

MANILDRA STARCHES





ABOUT MANILDRA

First established in 1952 with the purchase of a single flour mill, the Manildra Group of Companies has since achieved considerable growth and to this day, remains a privately owned, Australian company. Manildra is now the largest user of Australian wheat for industrial purposes, processing approximately one million metric tonnes of wheat per annum.

Manildra's diverse product range includes flour and baking pre-mixes as well as products derived from the wheat flour, such as starches, glucose syrups, maltodextrins, gluten, functional wheat proteins and ethanol.

Manildra Group operates three starch plants located at:

- Nowra, New South Wales, Australia
- Hamburg, Iowa, United States
- Korat, Thailand

The Manildra Group's primary manufacturing facility is Shoalhaven Starches, located in Nowra, two hours drive south of Sydney. The manufacturing process at the state of the art Shoalhaven Starches site is truly unique, deriving a diverse range of high quality products from simple wheat flour.

AUST – THAI STARCHES, THAILAND

Aust - Thai Starches is a Manildra joint venture, dedicated to the manufacture of superior industrial starches. This highly efficient plant was established in the year 2000, and being located in Korat, Thailand, ensures a strong supply of mature tapioca root throughout the greater part of the year. This secure supply of quality tapioca ensures our customers a reliable stream of highly stable starch products.

Aust - Thai Starches specialise in the production of cationic starches. Our superior quality and performance has enabled these products to become well recognised within the paper industry.

STARCH PRODUCTS

The Manildra Group supplies a broad range of industrial starches for applications predominantly in the paper, corrugating and plasterboard industries. We are committed to servicing an extensive domestic and international customer base.

Manildra takes pride in having supplied the paper and packaging industry for the past 40 years. Throughout this period, Manildra has remained a force in this competitive international field. Supplying a broad range of high quality wheat starches from the Australian and American operations, as well as modified tapioca starches from Thailand, we are able to meet all customer requirements.



SIZE – PRESS STARCHES

Manildra's specialised size-press products are manufactured from highly refined wheat and tapioca starches. The wheat based products are supplied as either native starch or as reduced viscosity, modified starches. The tapioca size-press starches are supplied as modified products and are available in three primary viscosity ranges. All of the modified size-press starches, whether wheat or tapioca based, are identified as the **Gemfilm** series.

The **Gemfilm** products are effectively dispersed using batch or jet cooking systems. There are various viscosity ranges available, so **Gemfilm** starches can be easily applied to the diverse size-press configurations.

CATIONIC STARCHES

Through close consultation with paper manufacturers, Manildra have developed an impressive range of cationic starches. The **Gemcat** series provide a highly efficient means of improving the internal strength properties of the diverse range of paper and board grades commonly manufactured. In addition to the development of sheet strength, the more highly modified **Gemcat** starches also assist with increasing filler retention levels.

Manildra's **Gemcat** starches provide an effective cationic species in ASA internal sizing systems, as well as microparticulate retention systems.

Manildra's wide selection of **Gemcat** starches, with various Degrees of Substitution (D.S.) ensures the most appropriate product can be applied to the machine wet-end system for optimal improvements.

CARBONLESS PAPER STARCHES

The Manildra Group is one of the few suppliers of the precisely calibrated wheat starch used as still in the manufacture of carbonless copy paper. Using a complex process, Manildra strips out 95% of the starch granules smaller than 10 um, to generate a starch product with a tightly controlled granule size range.

The specialised **M80** series of starches provide maximum ink microcapsule protection in this application

CORRUGATING STARCHES

Manildra's range of specialty corrugating products consists of the **Gemx** carrier starches and rheology enhancers. In addition to these adhesive stabilisers, Manildra supplies a range of high performance waterproofing agents, commonly known as the **Gemres** range. Combined with Manildra's **Gemcor W**, these additives provide very stable and highly versatile corrugating adhesives that can be effectively applied to older as well as high speed modern corrugators.

Manildra also manufactures **Gemcor 54 PG**, a specially formulated one – bag mix for simplified, effective corrugating adhesives. **Gemcor 54 PG** is simply solubilised into water with waterproofing agents added if required.



SPRAY STARCHES

Manildra's **Gembond** series is a selection of highly refined, modified spray starches designed for spray applications.

Gembond spray starches are applied to the wet paper web and require a balance of heat and moisture in the sheet to provide optimum strength development.

The **Gembond** series have low gelation temperatures for easier cooking and are extremely effective for the improvement of plybond, as well as sheet crush properties

PLASTERBOARD STARCHES

Manildra manufacture highly modified **Gemgel** starches for use in gypsum plasterboard production. The **Gemgel** products have been designed to efficiently migrate through the plasterboard core to the liner interface, maintaining optimal hydration levels for the gypsum crystals.

Gemgel starches are also modified using specific methods to minimise the levels of Chlorine in the finished product.

QUALITY CONTROL

Stringent quality control procedures ensure Manildra's products are of the highest quality throughout each step of the manufacturing process. This ensures all specifications are met.

Manildra's Quality Control procedures are conducted according to International Standards, which is also demonstrated with the Lloyd's Register ISO9002 and HACCP certifications at major sites.

TECHNICAL PERSONNEL

To complement Manildra's extensive product range, a team of qualified personnel have been assembled to provide product support and customer service. Having expertise in all aspects of industrial starch application, Manildra's technical team provides valuable assistance with the optimisation of the starch products and their use.

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