

## Missing Ingredient Ensures New Petrochemical Product's Success

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When the development of a new grade of polyamide film for China stalled for lack of a suitable anti-blocking agent, Jebsen Industrial and its partner [PQ](#) Corporation delivered the ideal solution.



### The Challenge: Developing a New Function of PA Film

Company A, a China-based multinational in the field of materials science, was developing a new grade of polyamide (PA) film for use in China's demanding food packaging sector.

Although the company had devoted considerable time and resources to the research and development process, the new product did not perform to expectations during its initial three-month trial production. The innovative new PA film proved to receive the standard of reduce blocking force, in the mean time, it must have the necessary strength and durability, with high tensile strength and suitable elongation and tear strength.

Blocking is the tendency of opposite film faces to stick to one another, both during fabrication and when used in packaging applications.

Company A needed an effective anti-blocking agent that could improve the properties of its new film and ease machining. It therefore approached Jebsen Industrial, an acknowledged leader in the specialty chemicals field.

### The Solution: Expert Input to Optimize PA Production

To gain an in-depth understanding of Company A's challenges, Jebsen Industrial engaged in extensive discussions with the firm's R&D team and visited its manufacturing plant to observe the PA film production process. It discovered that the anti-blocking agent would need to eliminate blocking without negatively impacting production efficiency or compromising the particular balance of physical and optical properties that Company A had specified for its new grade of PA film.

To find the ideal anti-blocking agent, Jebsen Industrial liaised with its specialist partner PQ Corporation UK. PQ sent a number of sample formulations for Company A to test at its factory in China. After several trials and ongoing discussion by all three partners, a suitable PQ Gasil Anti-blocking Silica was finally selected.

At the suggestion of Jebsen Industrial, Company A further refined its production process to better accommodate the silica particle size and ensure homogeneous distribution of the anti-block in the final film.



Within three months of making contact with Jebsen Industrial, Company A had an effective anti-blocking solution for its new PA film. The new film product is now undergoing final modification, with full production of 600 tons a month expected in the near future.

“With decades of professional experience in the international petrochemicals sector, Jebsen Industrial was able to provide expert advice and help our local customer find the ingredient they needed to make their new product a success. At the same time, we are expanding the market for [PQ](#) Corporation in China and strengthening the burgeoning polyamide film production industry in this region,” said Mr Lorenz Zimmermann, Director of Jebsen Industrial.

Jebsen Industrial is a pioneer of industry in Greater China. It has been active in the region’s petrochemicals industry for more than two decades, with a history in chemical products distribution that stretches back more than 100 years.

### **Total Solution: Uncompromising Quality**

Using the anti-blocking silica from [PQ](#) Corporation, Company A was able to achieve a 50%-60% decrease in the blocking force exerted between layers of its new PA film.

“The anti-blocking solution suggested by Jebsen Industrial and [PQ](#) Corporation significantly reduced adhesion while allowing us to retain the new film’s essential properties: elongation, transparency, and surface smoothness,” a Company A spokesman said. “It met all our benchmarks and was crucial in helping us satisfy an unmet need and gain first-mover advantage with a new type of PA film for China.”

Company A also cited other benefits of the anti-blocking solution, including the high purity of [PQ](#)’s synthetic agent and the high quality of Jebsen Industrial’s ongoing support. The solution is also highly economical, delivers consistent product quality, ensures minimal wear on processing equipment, and enhances the feel of the finished film.

### **[PQ](#) Corporation: Global Industry Leader**

Headquartered in Pennsylvania in the USA, [PQ](#) Corporation is a leading producer of silicate, zeolite, and other performance-enhancing materials. [PQ](#)’s history dates back to 1831 when it was established to manufacture soap and candles. Today, its products are used worldwide in the detergent, pulp and paper, chemical, petroleum, catalyst, water treatment, construction, and beverage markets. It also supplies a range of engineered glass materials used for highway safety, polymer additive, metal finishing, and conductive particle markets.

[PQ](#) has been represented in Greater China by Jebsen Industrial since 1985.

### **For More Information**

For more information about Jebsen Industrial solutions for the petrochemicals industry, please send an email to [orindenquiry@jebsen.com](mailto:orindenquiry@jebsen.com) visit the website at: [www.jebsenindustrial.com](http://www.jebsenindustrial.com)