

## Creating a new elastic, soft spunbond nonwoven fabric

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Jiangsu Shengfang Nano Science and Technology Co., Ltd. has produced an elastic, soft nonwoven fabric on a conventional spunbond processing line by using Vistamaxx™ 7050BF performance polymer to modify its homo-polypropylene (hPP) formulation. Until now, conventional spunbond lines have only been able to produce non-stretchable, soft nonwoven fabrics. Believed to be a commercial first, this new elastic, soft nonwoven fabric is used to manufacture facial masks.

Shengfang, a converter based in Kunshan, China, primarily produces soft and normal spunbond nonwoven fabrics for hygiene, medical and other applications. While these fabrics are soft, they are not elastic and cannot be stretched.

The company wanted to expand its product portfolio with an elastic, soft nonwoven fabric to target new business opportunities.

### **Collaborating for a commercial first**

Having worked together successfully for many years, Shengfang turned to ExxonMobil with the aim of creating innovative solutions.

ExxonMobil recommended the use of Vistamaxx 7050BF performance polymer. Vistamaxx 7050BF has been designed to deliver elasticity and stretch in spunbond nonwoven fabrics. Tests have proven that a formulation comprising Vistamaxx 7050BF, hPP, and a hydrophilic masterbatch would be the best solution.

"I believe we are the first customer to use Vistamaxx 7050BF to produce a commercial elastic, soft nonwoven fabric on conventional spunbond processing lines," said Mr. Henian Xu, vice chairman, Jiangsu Shengfang Nano Science and Technology Co., Ltd. "This is a major breakthrough, as previously these lines could only produce non-stretchable fabrics."

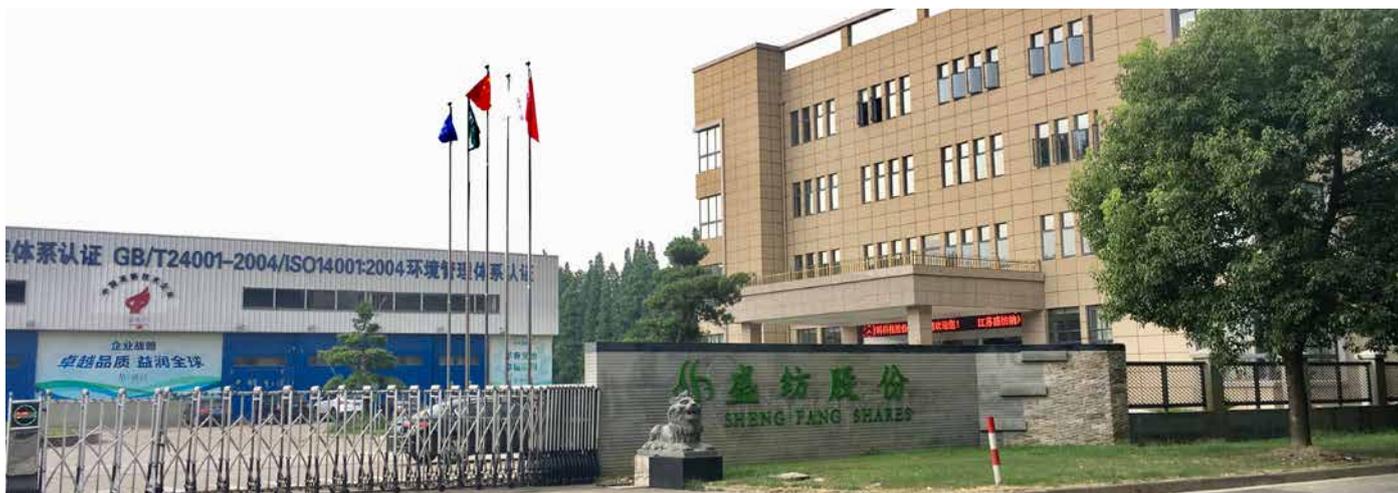
The process is simple. A dry blend of hPP, Vistamaxx 7050BF and a hydrophilic masterbatch are fed into an extruder. Once extruded, the blend is spun, laid on the belt to form the web, and then passed through a calendar to bond.

"Processing is easier because the melt flow rate of Vistamaxx 7050BF is 48," said Xu. "Being able to use existing lines has also saved us having to invest in new equipment."

### **New business opportunities**

The new elastic, soft nonwoven fabric creates new business opportunities for Shengfang. The fabric is used to produce facial masks with tailored elasticity, new levels of softness, drapability, and extreme comfort.

"This fabric is sold via our distributors to manufacturers in Japan, Korea and Taiwan to meet market requirements for innovative facial masks," said Xu.



Jiangsu Shengfang Nano Science and Technology Co., Ltd.



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