

Custom-Compounded Synprene™ Thermoplastic Elastomer

To develop a variation of its INSTEAD® Softcup® feminine hygiene product targeting the China market, INSTEAD Inc. relied on PolyOne to customize its Synprene™ thermoplastic elastomer and to provide creative financing and local manufacturing and technology resources.

Situation

INSTEAD Inc. has marketed the Softcup® internal period protection solution in the United States for more than 10 years, selling tens of millions as an alternative to traditional sanitary pads and tampons. However, Softcup remained a niche product in the U.S. relative to the very large potential national market for sanitary protection. In contrast, China – where women tend to be very pragmatic and open to new options – presented a huge, untapped market opportunity. So INSTEAD Inc. partnered with a Chinese manufacturer, Health Sciences Ltd., to launch a version of Softcup tailored to the specific requirements of Chinese and other Asian consumers, one with a smaller, less-obtrusive appearance.



“To make the Softcup appear more diminutive, our partner wanted us to modify the design and aesthetics slightly, making the rim 2 millimeters (mm) narrower and changing the pink tint to a neutral bone color,” said Wendell Guthrie, a consultant to INSTEAD Inc.

INSTEAD had been using PolyOne’s Synprene™ thermoplastic elastomer since 2002 to mold the rim of the Softcup device. The PolyOne material, based on styrenic block copolymer technology, delivers a soft, rubber-like feel combined with exceptional resilience, or “hoop strength.” This latter property enables the Softcup to be compressed for easy insertion into the vagina; it then regains its circular shape for maximum protection. The rim is heat-welded to the reservoir cup, which is made of polyethylene (UHMWPE).

“Based on our success with the Synprene product, we asked PolyOne to provide a proposal for a customized variation that could enable our partner to mold the smaller rims without compromising on compression strength or soft touch,” said Guthrie. “There was a catch, of course. We needed this material in three weeks.”

The PolyOne Difference

INSTEAD Inc. received proposals from other suppliers but chose PolyOne because of the company’s superior service offerings. “PolyOne was willing to work with us – a small, one-product company – to provide creative and flexible financing of large volumes of material needed for the product launch,” Guthrie said. “Equally important, the PolyOne team was able to develop and produce the custom Synprene TPE with practically no advance notice.”

INSTEAD found another major advantage to expanding its relationship with PolyOne. “When we learned that the company had acquired GLS Corporation, it was a very pleasant surprise,” stated Guthrie. “As part of PolyOne, GLS offers us local manufacturing and technology capabilities in mainland China. Otherwise, we might have had to find a local compounder, and that would undoubtedly have raised issues and caused delays. Working with GLS as part of PolyOne enabled us to make a seamless move to China.”



Delivering a Value-Added Solution

Rapid development of a custom-colored and formulated Synprene TPE grade enabled INSTEAD and its Chinese partner to meet a very tight schedule for the introduction of a Softcup product tailored for the Asian market.

- **Global supplier resources = ability to leverage new market opportunity:** The global financial, development and manufacturing resources of PolyOne made it easier for INSTEAD to take advantage of a major new opportunity in China.
- **Customized TPE = Asia-specific product:** The Synprene TPE material enabled market-specific modifications to the Softcup design that will make it appealing to Chinese consumers and boost market acceptance.
- **Superior properties = consumer satisfaction:** The customized material delivers a combination of softness for comfort and compression strength for performance. Synprene TPE bonds very well to Softcup's web, saving INSTEAD both the time and costs of secondary processes in assembly.
- **FDA approval = user safety:** The PolyOne material meets FDA requirements for Class II devices. Further, PolyOne's compounding expertise, technology and quality systems ensure a consistent result from batch to batch.
- **Local manufacturing = systems cost savings:** Having a local PolyOne manufacturing facility in China enables INSTEAD to quickly obtain material without high shipping costs. Also, technical resources are on hand to assist with any further customization requirements.

PolyOne, with the welcome addition of GLS, provided INSTEAD with invaluable support and assistance in the ramp-up of the Softcup launch in China with a proven, high-performance material, local manufacturing and technical support, and a hands-on team. With PolyOne's support, INSTEAD foresees further expansion of the Softcup line into other geographies.

Product choices often vary by region due to differences in regulatory and agency requirements, availability and other key factors. Please contact your nearest sales office for assistance in choosing the right solution for your locale.

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