CMT
Innovative Tooling **Materials** for Thermoforming

HYTAC® FLXT

Case Study

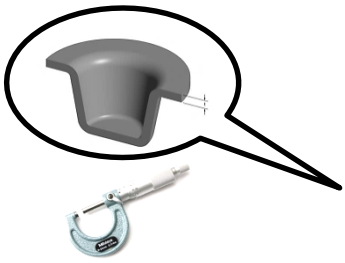
Productive Plastics Improves Quality with FLXT

Productive Plastics (Mount Laurel, NJ) is a leading plastics manufacturer specializing in heavy gauge thermoforming contract manufacturing. The company serves a wide variety of end markets including medical, automotive, signage, agricultural and transportation. When faced with a challenge to maintain uniform material distribution on a window mask part for an interior rail application, the company recently chose HYTAC FLXT as a new plug/pusher assembly to improve quality and consistency. Even though HYTAC was initially more expensive than a felt-covered Ren part, the syntactic foam proved to be a force multiplier in terms of overall savings. COO Evan Gilham explains:

"We had to maintain .030" thickness on .125" starting gauge sheet [Sekisui 6200 LTR] based on the customer's requirements. We were struggling to maintain the material distribution with a conventional Ren / felt pusher. When the customer tested the first parts, they rejected them due to excessive thinning. We switched to HYTAC and started getting .090" - .110" consistently. This gave us 3x the thickness with no mark-off when we switched to pre-draw and the new syntactic plug. To get the same thickness out of our first process, we would have needed to increase the gauge by at least a factor of 3. In addition, we could use our existing sheet stock without having to acquire new inventory based on a minimum purchase for a different size of material. As a lean shop, this was a big plus for us. Even though this was a low-volume job, the pusher paid for itself in about 10 parts."

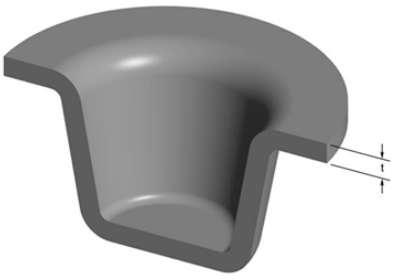
With increasing demands for quality from top-tier customers, thermoformers are stepping up to master TPOs, multilayer films and other expensive plastics. The tools of yesteryear are no longer valid in these demanding and dynamic markets.

Syntactic foams are engineered for performance when processing a wide array of polymers. HYTAC FLXT is optimized to provide an ideal balance between surface drag for material distribution, a smooth surface for excellent finish and Teflon® impregnation to eliminate part sticking while reducing mark-off. FLXT is easily machined with little to no dust and minimal wear on tools.



REASON #1: IMPROVE MATERIAL DISTRIBUTION

No one likes thin spots; everyone likes consistent and evenly distributed walls. Using the right plug material, geometry and processing techniques will ensure uniform wall thickness and a quality part.



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