Custom Thermoformer Eliminates Thin Spots with HYTAC® FLX

The following comments came from a thermoformer who participated in a recent workshop where CMT was invited to speak. We think it provides excellent insight into the daily challenges faced by operators and how a small change can have an outsized impact.

"I took what was learned in your class concerning material flow over the plug assist and applied that to the design of our mold. I started with 1/8" offset from the cavity, applied blends in strategic areas based upon my new understanding, and had the tool maker polish the HYTAC® FLX plugs to a 1500 grit. These three things together resulted in a wall thickness that was more than double what we had seen in the part's troubled areas.

I've only been involved with this project for a relatively short time (8 months or so), however, I know that over the years (several years, in fact) at least two engineers and a host of operators and tooling people have all tried their hand at carving plug assists, adding on to the mold length, and various other forms of 'black art' in the attempt to thicken up those troublesome thin walls. In short, the training we received from you proved that there is more of a science to thermoforming than most people recognize."

HYTAC® FLX is a top choice for optical clarity with PET and provides excellent polymer yields as a result of better material distribution. FLX has almost 3x the flexural toughness as standard thermoset epoxy syntactics. It is easy to machine and polish, offering a superb finish.

What does your plug do for you?

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.