



# Compounding Lines

Your Global Compounder of Custom Engineered Thermoplastics

## Attention, Please!

### Custom compound helps bring eye-grabbing vending machines to life

**Pyramid Technologies** is the leading developer of American-made bill acceptor modules—a key component of vending and amusement machines of all kinds. Recently, the innovative company had a brainstorm—what if they could develop a bill acceptor that not only had the capability of flashing colorful lights to draw in consumers, but would also allow machine operators to program their own colors? In addition, they thought, they could use the color flashing capabilities to provide machine technicians with color-coded diagnostic information.

*“Up until recently, the industry standard for bill acceptors was just a couple of little green lights showing consumers where to insert their bill,”* explains Mechanical Engineer Leif Strom. *“We saw an opportunity to add a lot more excitement and utility and provide even more value to our customers.”*

The company designed a bill acceptor that featured four areas that, by default, would shimmer through a rotating rainbow of bright colors. But, according to Strom, that would only be the beginning. *“This product would*

*also provide the capability to customize patterns and colors however and whenever the operator desired, for example, making a popular soft drink machine flash just red and white, or having a machine flash green and red around Christmas time,”* he explained.

Each of the lighted areas would be driven by a generous number of LEDs covered by polycarbonate bezels designed to diffuse the light into an even, eye-pleasing, attention-getting glow. But, according to Strom, **Pyramid** soon ran into a production challenge.

*“The polycarbonate needed to have a particular milky white tint to achieve the optimum effect we were looking for, and our supplier at the time did not have that available,”* he explained. *“In addition, the sample material they gave us was coming out of the mold with a lot of bubbles, so we needed it to be adjusted to deliver a lower flow rate.”*

In both cases, he reports, the plastics supplier refused to modify the material because **Pyramid** wasn't a large enough customer.

*“They invited us to try another off-the-shelf product, but that was about the extent of their assistance,”* he said.

Strom knew of **RTP Company** because previously, **Pyramid** had purchased an off-the shelf product to take advantage of **RTP Company's** fast delivery time. But he also knew that **RTP Company** had a reputation as a custom compounder that was glad to help smaller batch customers, too.

*cont.*





## Pyramid Technologies

**Market:** Business Machines  
**Compound:** RTP 300 series  
with light diffusion pigment

cont.

*"Their rep came in, looked at our situation, asked a lot of smart questions, and took it back to the lab," reported Strom. "Within a very short time, he had a test batch for us—and it ran perfectly the very first time. No bubbles at all, and the milky white opacity they compounded makes the LED colors look as vibrant as we had hoped."*

The result is **Pyramid's** Spectra bill acceptor, released earlier this year. With just a few hundred in the field so far, the results have been remarkable.

*"There's not a lot left that you can put on vending machines to increase sales, but operators using Spectra bill acceptors on their machines are reporting bumps*

*of around 5%," said Strom. "Not surprisingly, many customers trying it are coming back to us for more."*

Delighted with finding **RTP Company's** superior products and service, Strom has already asked **RTP Company** to custom formulate another material for a different component, and he looks forward to an even closer partnership in the future.

*"I'm very glad to tell people about the quality of **RTP Company**," said Strom. "They're very knowledgeable, very easy to work with, and they really helped us out of a bind."*



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