

Homogeneous light scattering

With ACRYLITE® molding compounds, Checkpoint Systems produces aesthetically pleasing security antennas in individual store designs

- Checkpoint Systems, the manufacturer of detection systems, is replacing conspicuous gates with a discreet column
- A cover made of ACRYLITE® Softlight special molding compound colored in gray enables a homogeneous light effect at a low component depth
- The robust material from Röhm meets sustainability standards in shopfitting thanks to its longevity

Until recently, loss prevention antennas at checkouts or retail exits were often designed as bulky gray panels or pillars with minimal visual appeal. The American company Checkpoint Systems has revealed details of its next generation of aesthetic antennas with innovatively designed covers. Casings on the NS40 and NS42 feature a special light-scattering ACRYLITE® product. It enables them to fit seamlessly into the retail environment while delivering an elegant, attention-grabbing light effect. ACRYLITE® is the brand polymethyl methacrylate (PMMA) from Röhm in the Americas.

In search of better light

Checkpoint created a product that combined excellent performance with aesthetics, enabling the antennas to complement and blend in with a store's design as much as possible. As the company's Industrial Designer, Ben Rubinstein explains: "Our aim is always to help our retail clients stand out from the competition with products that are aesthetically pleasing, so we decided we needed to review a number of the antennas in our portfolio. While we do our best to make them as elegant as possible, some of the older ones did not look good when the alarms were sounding – as soon as the security function was triggered, the warning lights were uneven and there were hotspots." Rubinstein set out to find a material that would enable more homogeneous light on the columns and fortunately discovered ACRYLITE® molding compounds.

Convincing light scattering

"I quickly realized that ACRYLITE® molding compounds offer precisely the properties we need," comments Rubinstein, who was working on an innovative electronic article surveillance (EAS) system for food retailing at the time. Instead of bulky, conspicuous gates, the new design consists of just one elegant column. An LED light is integrated at the top, hidden beneath an injection-molded cover made of gray ACRYLITE® Softlight molding compound. "This special molding compound has a particularly good scattering effect and prevents hotspots," explains Neville Green, New Business Development Manager at Röhm. "Therefore, covers for RGB LEDs can achieve a homogeneous light effect even at low component depths." This was a key factor for Checkpoint Systems, as the compact and sleek design of the new NS40 and NS42 line required the LEDs to sit very close to the material.

Rubinstein adds: "The LEDs are only a few millimeters away from the material. Other plastics quickly reach their limits here when it comes to their ability to scatter light. The ACRYLITE® material can scatter light evenly however close we position the LEDs and, for me, this borders on magic."

Darmstadt, February 28, 2023

Press contact:

Thomas Kern
Global Communications
Molding Compounds

Deutsche-Telekom-Allee 9
64295 Darmstadt
Germany
T +49 6151 863-7154
thomas.kern@roehm.com

Marc Tracey
Communications Lead, Americas

Roehm America LLC
8 Campus Drive
Suite 450
Parsippany, NJ 07054
USA
M +1 862 337 1270
marc.tracey@roehm.com

www.acrylite-polymers.com

Röhm GmbH
Deutsche-Telekom-Allee 9
64295 Darmstadt
Germany
www.roehm.com

Managing Directors
Dr. Michael Pack
Dr. Hans-Peter Hauck
Martin Krämer

Chairman of the Supervisory Board
Dr. Dahai Yu

Registered Office is Darmstadt
Register Court Darmstadt Local Court
Commercial Registry B 100475

ACRYLITE® is versatile and durable

When it is not lit up, the molding compound has a black appearance and elegantly blends in with the low-key design of the columns. However, when the light source is activated, the columns can light up in any color combination and are only red when the alarm has been triggered by a potential shoplifter passing the antenna.

Another feature that convinced Checkpoint Systems to choose Röhm is the material's high resistance. PMMA has one of the highest surface hardnesses of any thermoplastic and boasts good chemical resistance against, for example, cleaning agents. "Security systems at store exits need to withstand quite a bit of wear and tear," comments Rubinstein. "Our EAS systems at checkouts need to be robust and last for at least ten years. This not only fits in with customers' increasing efforts to ensure sustainability, but also matches Checkpoint Systems' corporate philosophy. We are working towards a genuine circular economy and, to this end, nearly all of the plastics we use are recyclable."

This is also the case for ACRYLITE®: Röhm's durable PMMA molding compounds are "sustainable by design" and are 100% recyclable. This combination of properties is one of the key deciding factors for Checkpoint Systems in partnering with Röhm. As a result, Rubinstein believes it is highly likely that the collaboration will continue for future projects, too. "We have lots of possible areas of application for ACRYLITE® products, and we will certainly be taking a closer look at ways to work together going forward," he concludes.

[Images]



The EAS antennas NS40 and NS42 from Checkpoint Systems: At the top of the columns is an LED light under a cover made from light-scattering ACRYLITE® Softlight, which appears black when unlit. When the light is switched on, it is lit in the company color, for example, and switches to bright red when the theft alarm is triggered.

© Checkpoint Systems



With its NS40 and NS42 antennas, Checkpoint Systems offers a subtle solution for electronic article surveillance in retail. The slim columns are both effective and aesthetic, fitting subtly and elegantly into the shop design – properties that are highly prized in shops with high-end ranges in particular.

© fiphoto / istock

...

About Röhm

With 3,500 employees and 13 production sites worldwide, Röhm is one of the leading manufacturers in the methacrylate business. The medium-sized company with branches in Germany, China, the USA, Mexico, and South Africa has 90 years of experience in methacrylate chemistry and a strong technology platform. Our best-known brands include PLEXIGLAS®, ACRYLITE®, MERACRYL®, DEGALAN®, DEGAROUTE® and CYROLITE®.

Polymethyl methacrylate (PMMA) products from Röhm are sold in the Americas under the registered trademarks ACRYLITE® and ACRYMID®, on the European, Asian, African and Australian continent under the registered trademarks PLEXIGLAS® and PLEXIMID®.

More information is available at www.roehm.com.

About Checkpoint Systems, Inc. (www.checkpointsystems.com)

A division of CCL Industries, Checkpoint Systems is one of the only vertically integrated RF/RFID solution providers for retail. Checkpoint delivers intelligent solutions – bringing clarity and efficiency into the retail environment anytime, **anywhere**. Through a unique offering of software, hardware, labels, tags and connected cloud-based solutions, Checkpoint's intelligent retail solutions are built upon 50 years of radio frequency technology expertise, innovative high-theft and loss prevention solutions, market-leading software, RFID hardware, and comprehensive labelling capabilities to brand, secure and track merchandise from source to shelf.

Twitter: @CheckpointSys

About CCL Industries

CCL Industries Inc., a world leader in specialty label and packaging solutions for global corporations, small businesses and consumers, **employs** over 21,000 people and operates over 180 production facilities in 40 countries on six continents with corporate offices in Toronto, Canada, and Framingham, Massachusetts. For more information, visit www.cclind.com.