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FOR IMMEDIATE RELEASE:

EYE OPENING LIMS PRODUCTS ON DISPLAY AT NPE 2018:

SHIN-ETSU SILICONES DEMONSTRATES OPTICAL LIMS LINE AND INTRICATE 4-PETAL DUCKBILL VALVE PRODUCTION AT NPE PARTNER EXHIBITS.

Akron, OH– July, 2018

Shin-Etsu Silicones of America, Inc. (SESA: A U.S. subsidiary of Shin-Etsu Chemical Co. Ltd., Japan) recently participated in daily technical demonstrations with their industry leading equipment manufacturing partners at NPE 2018 (May 7-11/Orlando, FL). The integrated demos displayed a variety of Shin-Etsu's LIMS (Liquid Injection Molding System) products' advanced handling and molding properties in the production of optically clear silicone Wayfarer eye glasses and magnifying lens, along with an intricate 4-petal duckbill valve.

At the triennial Plastics Show, all eyes were on two detailed material production demonstrations featuring SESA's optically clear LIMS X-34-1972-3. With a transparency of 95%, SESA's optically clear material is uniquely engineered and ideal for expanding LED applications in street lighting, automotive, and exterior illumination.

WAYFARER EYE GLASSES DEMO WITH OPTICAL LIMS X-34-1972-3:

At SESA's booth, a unique Wayfarer eye glasses demo was produced with optically clear LIMS X-34-1972-3. Participating partner Engel Machinery North America (York, PA) provided their e-mac 55 US/viper 6 LSR all electric injection molding machine, that used a 1-cavity, valve-gated, cold-deck runner mold built by Roembke Mfg & Design (Ossian, IN).

Roembke also partnered with DF Automation & Robotics (Johor, Malaysia) in supplying the End-of-Arm Tooling (EOAT) and automation to remove the glasses. Additionally, Graco, Inc. (Minneapolis, MN) supplied their Fluid Automation F4-5 Meter Mix pumping system.

Notably, the LIMS X-34-1972-3 displays superior high temperature resistance compared to thermoplastic resins. This enables molded silicone optics to be positioned in close proximity to the LED light source–without yellowing or cracking over extended operating life spans. Additionally, the lower viscosity of LSR allows it to precisely replicate the intricate geometry of the optic mold which improves overall optical efficiency and output.

MAGNIFYING LENS DEMO WITH OPTICAL LIMS X-34-1972-3:

Maruka USA's (Lee's Summit, MO) booth featured their Toyo all-electric, 110 ton Si-110-6 machine, which was uniquely retrofitted from a thermoplastic press to run LSR specifically for the NPE. Additionally, M.R. Mold & Engineering Corp. (Brea, CA) provided their 4-cavity mold to produce a magnification lens from SESA's optically clear LIMS X-34-1972-3 silicone. The optically clear material was utilized to mold the entire magnifying glass including two key surfaces: the textured, embossed handle and bezel, and the diamond polished lens.

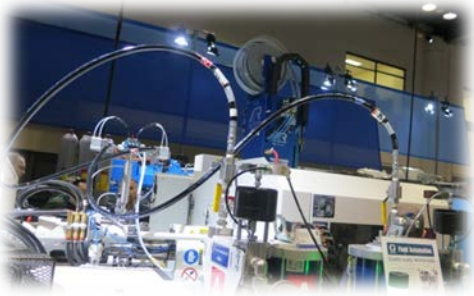
M.R. Mold's universal base, single-drop cold runner system featured ejection that presents the part for robotic removal of the magnifying lenses with Yushin America, Inc.'s (Cranston , Rhode Island) End-of-Arm Tooling (EOAT) and automation. Also, Graco supplied their Fluid Automation pumping system and their water-cooled, pneumatic shutoff nozzle with diving tip.

According to SESA's North America Marketing Manager, Eric Bishop, "Next-generation HBLED systems are getting hotter as light output continues to increase. The advanced engineering properties of our optically clear X-34-1972-3 materials deliver unparalleled heat resistance and clarity at these higher operating temperatures."

4-CAVITY LSR DUCKBILL AUTOMATION WITH LIMS KEG-2000-50:

One of the leading manufacturers of plastic machines in the world, the KraussMaffei Group (Munich, Germany) displayed a 4-Cavity LSR duckbill valve with automation from M.R. Mold at their booth. The showcase featured SESA's KEG-2000-50 LIMS material running in KraussMaffei's all-electric PX 51-55 SilcoSet machine. The machine includes a small hydraulic pump that is used to generate contact force between the injection unit and the mold and to actuate knock-outs.

Silicone duckbill valves are often used in medical equipment, and this one featured an intricate 4-petal design. The KEG-2000-50 material ran flawlessly from startup with no flash, which is difficult with such a complex design.



M.R. Mold's design featured a 4-drop, cold runner system and in-mold slitting. Notably, the in-mold slitting is part of the mold automation with specific molding machine sequencing–where the valves are molded, advanced to slit against a disposable backing media within the mold, retracted, and then knocked out. Additionally, Graco supplied their Fluid Automation LSR dosing system and their water-cooled, pneumatic shutoff nozzle with diving tip.

KEG-2000 LIMS products have consistent properties from batch to batch and offer "Dynamic Viscosity". They have high clarity and range in Shore A hardness from 10 - 80. Additionally, the products have been tested for compliance with FDA, USP Class VI, and ISO 10993 regulations.

According to SESA's North America Marketing Manager, Eric Bishop, "In order to compete globally, our customers must continually increase their productivity by reducing waste & cycle times, and employing automation. Our KEG-2000 LIMS series is designed to take full advantage of the latest developments in molding equipment and tooling technology." Bishop also noted that molded articles from the KEG-2000 series are commonly used in the Healthcare, Infant Feeding, Automotive, and Consumer Products industries.

For more detailed information, visit the Shin-Etsu Silicones web site at:

http://www.shinetsusilicones.com

CORPORATE PROFILE:

A U.S. subsidiary of Shin-Etsu Chemical Co. Ltd., Japan, Shin-Etsu Silicones of America Inc. offers vast technical and capital resources to formulate solutions as a major supplier of silicone materials to North America's medical, automotive, electronics, aerospace, cosmetics, and manufacturing industries. Shin-Etsu's premium silicone compounds incorporate leading-edge technology, staff expertise, and value-added service; offering customers the highest levels of quality and consistency in specialty silicone materials.