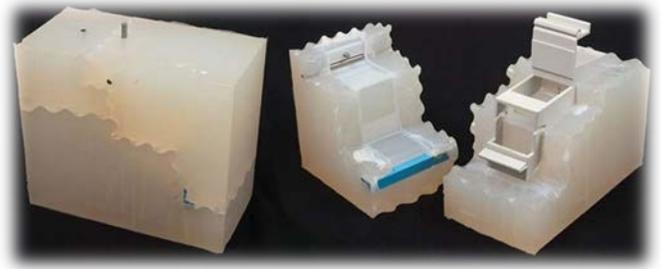


FOR IMMEDIATE RELEASE:

RAPID PROTOTYPE–SILICONE PARADIGM:

SHIN-ESTU SILICONES NEW MOLD MAKING SES22251 SERIES SETS THE STANDARD FOR EVOLVING 3D PRINTING APPLICATIONS.



Akron, OH–April 2020

With the advancement of new elastomeric materials formulated specifically for urethane, epoxy, and acrylic casting and 3D printing, silicone is a vital solution for molds to make better rapid prototypes. Leveraging silicone technologies will allow rapid prototyping houses to improve part fabrication speed, accelerate product development revisions, and enhance resolution while reducing capital equipment costs.

According to Jim Hollister, President of Poly Pro, LLC (Asheville, NC), with more than 30 years in the rapid prototyping industry, "Silicone tooling done correctly can make the highest quality parts you will ever see. Even companies like GE use production urethane castings made from silicone tooling as they are not likely to spend \$500k on a metal tool when they will only use 100 parts a year for MRI housings as an example."

Whereas the mold making silicone industry has not been presented a new product for a number of years, Shin-Etsu Silicones of America, Inc. (SESA: A U.S. subsidiary of Shin-Etsu Chemical Co. Ltd., Japan) continues to take the lead on innovating products by launching their new SES22251 Series high tear strength, high modulus, platinum cure mold making silicone. Ideal for rapid prototype houses across various industries including Medical, Auto/Transportation, and Consumer Products, the SES22251 Series exhibits excellent tear resistance including undercuts, low shrinkage, low viscosity and easy release—making it an excellent mold making material.

A completely redesigned formulation from SESA's R&D Team, the SES22251 base silicone can be mixed with four flexible Shore-A Hardness catalyst options (CAT22251-40/35/30/20) to achieve an optimal hardness.

Less expensive than a metal mold, the SES22251 Series' advanced silicone properties will allow designers to make parts from a silicone master mold quicker and easier for rapid prototyping of parts and new product development revisions—while assuring reduction in overall time, the cost of projects, and more pulls per mold.

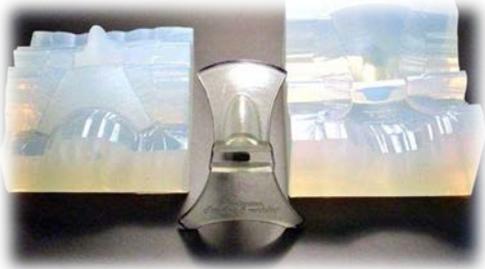
SES22251 SERIES / MOLD MAKING PROFILE: (CAT22251-40/35/30/20)

HIGHER TEAR STRENGTH: The SES22251 Series consists of one base compound and four catalyst options (10:1 mix ratio) that can be mixed with it based on application requirements and desired Shore-A hardness: CAT22251-40/35/30/20. Traditionally, 40A has been a mold making industry standard, but the 35A is emerging as a go-to durometer based on superior tear strength for molds with undercuts.

Notably, the higher tear strength of the new SES22251 formula allows more parts/pulls from a single mold, so the working life of the mold is significantly longer—equating to substantial cost savings.

LOWER VISCOSITY: The Series' low viscosity flows better which allows silicone molds to be made easier, faster and reduces labor cost. This low viscosity de-airs more quickly—reducing the chance for unwanted bubbles. A bubble in an undesirable location can ruin the mold. This also equates to less material consumption and waste.

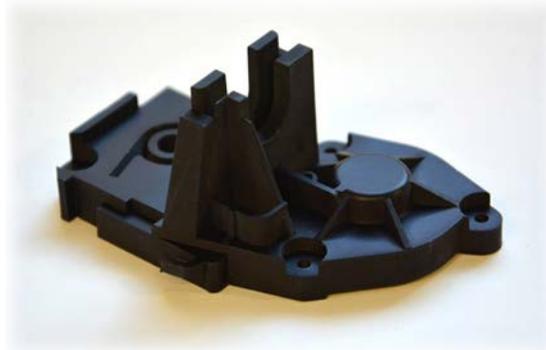
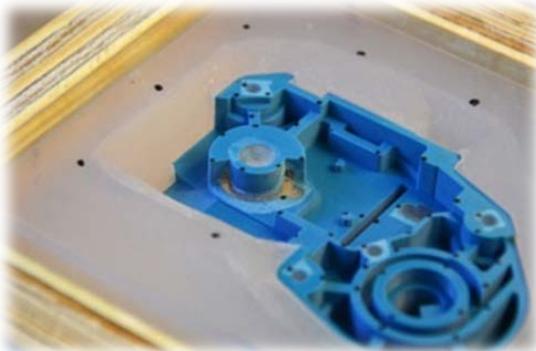
BETTER INHIBITION RESISTANCE: A major issue resolved by the Series is avoiding inhibition when making the mold. Inhibition occurs by contamination of the platinum from a myriad of sources. The SES22251 is uniquely formulated to make it less susceptible to cure inhibition



TRANSLUCENT COLOR: The Series is translucent so you can see the part in the silicone mold block and know exactly where to cut. This is optimal for a one-piece pour as you can pour all around the part, do the cutting line, cut the mold in half, and then take the part out. Typically, parts can be made in one day.

OTHER KEY FEATURES:

- Cure Conditions: 24 Hrs. @ 23C
- High Tensile Strength: 7.19 MPa
- Working Time: 90 minutes
- Excellent Tear Resistance: 24 kN/m



Photos courtesy of Poly Pro, LLC:

Image 1 = Blue 3-D printed master / Image 2 = Both halves of the silicone mold
Image 3 = Cast urethane replica

SES22251 CONCLUSION: RAPID PROTOTYPE SILICONE MOLD MAKING

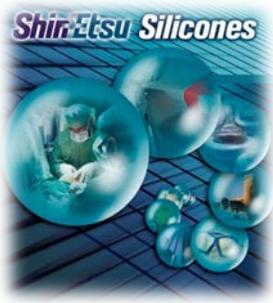
The growth trajectory of 3D printing and rapid prototype operations is ascending for a host of market applications, and Shin-Etsu Silicones of America is at the forefront of the silicone mold making surge.

Poly Pro's Hollister concluded, "This new SES22251 is incredible with its variable durometer option. Yes, it makes amazing silicone tooling, but this also allows you to use the material to make the actual parts from silicone. Ultimately, making silicone parts out of silicone tooling is a wonderful option for prototype and production silicone parts."

According to SESA's Regional Sales Manager-RTV, Jeff Schlegel, "Rapid prototype professionals are real artists, and once they use the SES22251 material they are amazed at what they can do in creative and efficient product development. We rolled out with select customers in the last year, and based on their positive feedback, we are now introducing it to the entire rapid prototyping industry."

For more detailed information, visit the Shin-Etsu Silicones web site at: www.shinetsusilicones.com

You may also contact Jeff Schlegel directly via email at: jschlegel@shinetsua.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.

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