

# News Release

## Solid Concepts to Highlight New Urethane Capabilities at the Pacific Design Engineering Show

*New formulations and processes enable the rapid production of urethane cast parts that closely simulate a wide range of engineering materials*

VALENCIA, CA - January 9, 2000-Solid Concepts Inc. announced today that they will highlight their expanded urethane casting capabilities at the Pacific Design Engineering Show, being held January 18-20, 2000, at the Anaheim Convention Center in Anaheim, California. Using new formulations and processes, Solid Concepts is now able to produce cast urethane parts that closely simulate injection molded plastic parts. Material properties include elastomeric urethanes that simulate everything from latex to hard rubber as well as rigid urethanes that have a UL 94VO flame retardant rating. The latest addition to Solid Concepts' array of castable urethanes includes a new formulation that simulates the end properties of high density polyethylene. Polyethylene is a popular thermoplastic for applications requiring strength and durability, such in as medical and consumer products where snaps and clips are often required.

"Cast urethanes are an ideal way to produce prototypes with the look and feel of injection molded parts at a fraction of the cost of injection molded parts", according to David Cawley, Solid Concepts' Director of Cast Urethane Operations. "With the right urethane materials and processes, it is possible to reproduce features as fine as a fingerprint. This means that details such as surface finish or other aesthetic properties can be molded into urethane parts. Our latest offering enables us to provide prototype parts that are almost indistinguishable from injection molded polyethylene."

Applications for cast urethanes include prototypes for engineering studies as well as for marketing applications such as trade shows or customer focus groups. While production steel tooling for an injection molded plastic housing can take several months and cost upwards of \$50,000, a silicone rubber tool and several urethane castings can be produced in a matter of days and for less than \$1500.

"Silicone rubber tooling and cast urethanes have a distinct advantage over other methods for creating high-quality prototypes in a variety of materials", said Cawley. "Complex geometry and parting lines, and even multiple part molds are not a problem. This makes it possible to quickly go from an engineering concept in a CAD system to a high-quality part in a matter of days. If needed, urethanes can be color

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matched to production samples, and fillers may be added to enhance the material properties." According to Cawley, the material properties of some of the new urethanes match many engineering requirements, making cast urethane parts suitable for low volume production applications. This in turn enables faster time to market and lower costs than what is available through other bridge tooling technologies.

Visitors to Solid Concepts booth (#5521) can see parts manufactured from some of these new urethane materials.

*Founded in 1991, Solid Concepts supplies rapid prototyping, direct digital manufacturing, tooling and injection molding services. Solid Concepts has grown steadily to a five-facility, multiple technology company known to be a solutions provider with project management and engineering expertise. Capabilities in PolyJet™ high precision 3D printing, Stereolithography (SLA) models and patterns, HDSL (High Definition Stereolithography), Selective Laser Sintering (SLS), Direct Digital Manufacturing, CNC models and patterns, and QuantumCast™ advanced urethane castings, allows for low-volume production of plastic, urethane, and metal components directly from design data, resulting in significant time and cost savings. Capabilities in tooling and injection molding make Solid Concepts a one-stop source to bring concepts from prototype to finished product ready for market. ISO 9001:2008 and AS9100 Rev. B certified.*

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