

# News Release

## Solid Concepts Announces Immediate Availability of SLS Production Parts from Nytek Material

*New NyTek 1100 material supports Direct Digital Manufacturing for a wide range of aerospace and industrial components*

Valencia, CA - February 18, 2003-Solid Concepts Inc., a leading supplier of direct digital manufacturing (DDM) and rapid prototyping services, announced today the immediate availability of selective laser sintering (SLS) production and prototype parts made from their new NyTek™ 1100 SLS material. The new NyTek material is a polyamide formulation developed exclusively for Solid Concepts specially modified Selective Laser Sintering (SLS) equipment. NyTek 1100 has a unique chemistry that simultaneously provides for flexibility, hardness, increased wear resistance and superior corrosion resistance. NyTek 1100's low water absorption results in improved dimensional stability and electrical properties.

"The improved mechanical properties of NyTek opens the door to a number of direct digital manufacturing applications," said Fredrick Claus, Solid Concepts' director of business development. "Used in conjunction with our enhanced SLS equipment, this material provides the strength, durability and accuracy required for production applications."

The SLS process, developed by 3D Systems, uses a high-power CO2 laser to selectively sinter powdered material, layer by layer, into a solid object. This layer-by-layer process makes it possible to construct complex shapes with interior features that would be impossible to manufacture by traditional methods. While the SLS process has been available for a number of years, the accuracy, surface finish, and mechanical properties of the parts have limited their use to prototyping applications. Solid Concepts has modified their SLS equipment to improve their accuracy and the new NyTek material provides enhanced mechanical properties and surface finish. With these advancements, production quality parts can now be manufactured directly from CAD data, without any tooling or fixtures. This Direct Digital Manufacturing process has the potential to revolutionize how many products are designed and manufactured.

While virtually any industry can benefit from DDM and the new NyTek material, aerospace companies have been the first to adopt NyTek for production applications. "One of the first applications for NyTek and DDM involves complex air ducting for military applications," said Claus. "Modern military equipment contains

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an extensive array of sophisticated electronic equipment. Keeping that equipment functioning requires proper cooling in an often-hostile environment. Since every ounce of extra weight subtracts from payload and range, weight is always at a premium. With NyTek and DDM, engineers can replace multiple components with one complex shape that reduces weight and improves quality by eliminating piece parts and fasteners. Additionally, engineers can now design ducts with flow straighteners that would be impossible or cost prohibitive to manufacture through traditional processes."

Other applications for DDM include conformal reservoirs, ergonomic shaped controls, bulkhead grommets, clips, clamps, shrouds, shields, vents and enclosures, according to Claus. Detailed specifications for NyTek 1100 are available from <http://www.solidconcepts.com>.

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*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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