

Durability And Flexibility Of Somos® ProtoFunctional™ Resins Enable Diving Systems To Functionally Test Diving Mask Prototypes

Santa Barbara, CALIFORNIA - Diving Systems International (www.divingsystems.com), a world leader in technology for the commercial, military and scientific diving industry, has turned to DSM Somos® ProtoFunctional™ Materials as a material source to build diving mask prototypes that can be functionally tested.

Diving Systems' M-48 SuperMask (pat. pend), a unique new two-cavity full face mask, features more than 20 parts that were prototyped using Somos® 9100 ProtoFunctional™ Materials by Scicon Technologies (www.scicontech.com), a leading west coast service bureau.

The resins in the Somos® 9100 series replicate polypropylene's tensile strength, elongation at yield, and polypropylene parts. These resins are high-speed liquid photopolymers that produce robust, functional, and accurate parts using stereolithography machines. Each resin has a wide processing latitude and excellent tolerance to a broad temperature and humidity range during and after build as well as offering superior chemical resistance. The Somos® 9100 series offers a good balance of properties between rigidity and functionality.

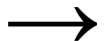


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According to Pete Ryan, Design Engineer, Product Development for Diving Systems: "Until Somos® 9100 ProtoFunctional™ Materials became available, prototype resins were too brittle to allow us to truly test the functionality of a prototyped part such as a diving mask. The ability to physically evaluate a product such as our M-48 SuperMask is critical because of the high performance characteristics demanded by our customers. This mask, for example, is unique because its bottom cavity is removable, allowing changeouts of breathing apparatus and gas breathing mixtures. With Somos® 9100 we were able to produce mainframes of the mask's jaw and most rigid parts with a level of durability enabling painting, assembly and controlled testing during actual dives."

Dave Green, VP. of Engineering at Scicon Technologies, Diving Systems' service bureau, supports Pete Ryan's perspective. "Why did we choose to use Somos® 9100?" asks Green. "Because it's the best. Sure, there are other choices in prototyping resins but none would offer this degree of superior durability, memory and accuracy. The benefits of Somos® 9100 ProtoFunctional™ Materials are numerous. We are able to achieve speed, which is key to getting products quickly and effectively into competitive markets. We are also able to refine designs based on functional prototypes, adding or modifying features.

Of primary importance, of course, is that we can produce prototypes that provide us more than just something to look at. With M-48 SuperMask, rigid components of the product are to be injection molded from glass filled nylons, polycarbonate and ABS. The ability to closely approximate actual performance characteristics of those production materials is key to the design and manufacturing of products that do what their supposed to do."



[The ProtoFunctional™ Materials Company](http://www.dsmsomos.com)

DSM Somos®



FOR ADDITIONAL INFORMATION ABOUT DSM SOMOS®:

DSM Somos® is the leading materials supplier for the rapid prototyping industry. Located in New Castle, Delaware, DSM Somos® has developed a full line of ProtoFunctional™ materials that replicate the performance parameters of production materials, saving both time and money in new product development. From thermoplastic elastomers to polyethylene and polypropylene, DSM Somos® has ProtoFunctional™ solutions for stereolithography and selective laser sintering technologies.

DSM Somos® is a business unit of DSM - a highly integrated group of companies with worldwide interests in life-science products, performance materials and chemicals. DSM recorded sales of EUR 8.1 billion last year and employs a total work force of some 22,000, distributed in more than 200 operations throughout the world.

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