

## X.I.P. Chooses Somos® ProtoFunctional™ Resins To Replicate Polypropylene For Unique Utility Knife

X.I.P. Company, Cincinnati, Ohio, has selected a new generation ProtoFunctional™ resin, DSM Somos® 9100, to produce prototype models of its new, unique Safe-T-Cutter: a utility knife that allows the user to safely open all types of corrugated packages while also reducing damage to packaged contents.

Somos® 9100 was chosen because it replicates polypropylene's tensile strength and elongation at yield, thereby enabling X.I.P. and its service bureau, Morris Technologies ([www.morristech.com](http://www.morristech.com)), also of Cincinnati, to accurately test form and function relative to the actual material in which the finished product will be molded.



The resins in the Somos® 9100 series are high-speed liquid photopolymers that produce robust, functional, and accurate parts using sterolithography 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. These materials are especially useful in applications where durability and robustness are critical requirements, such as automobile components, electronic housings, medical products, large panels and snap-fit parts.

The Safe-T-Cutter was designed to create a safe and efficient workplace via an advanced cutting system that increases cutting ability with the twin blade concept (single housing with front and rear cutting capabilities) and the twin wing protection (one end of housing has wings). The inventive twin wings act as a guide allowing for accurate cuts of corners and help reduce the amount of product damage. The wings also provide the user with better stability, which allows for a controlled cut.

By virtue of design innovation, the Safe-T-Cutter has incredible multi-purpose uses making it ideal for easily cutting single and double wall corrugated containers, multi-depth scored, tops of boxes, twine, string and plastic strapping, and in-house packaging displays

Of equal importance to the product's performance innovations, Safe-T-Cutter offers core safety solutions that can reduce on the job injury and absenteeism. Traditional razor knives can cause cutting hazards such as lacerations and puncture wounds due to exposed blades that must be retracted manually. Traditional knives do not always offer the most controlled cuts that result in damaged products as well as employees.

Unique Safe-T-Cutter design differentiation ensures that spring-loaded blades automatically retract when not in use, eliminating blade exposure that may cause cuts and punctures. Recessed thumb levers activate blades help to reduce worker injury or accidental product damage Also, blade carriages are designed so that they are nested into each half of the housing. Blade carriages will not fall out when replacing blades. Springs are also housed in a manner that they cannot become lost.

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The ProtoFunctional™ Materials Company

**DSM Somos®**

