

DuPont

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Slot for oxygen bottle valve enables rescue personnel to start life support immediately.



Firefighters carrying the Res-Q-Rench can make water connections and open hydrants quickly and safely.



The seat belt cutter helps rescuers extricate trapped passengers.

Proper design and molding — combined with the strength of Zytel® ST super tough nylon — impart durability and versatility.



Slot for residential gas valve shutoff to quickly eliminate the potential of additional fire damage.



Tungsten carbide punch breaks through glass for access to injured passengers.

Pry bar section provides leverage.



A Good Tool for Good Hands

Firefighters are discovering a compact life-saving tool called Res-Q-Rench. Made of DuPont Zytel® ST super tough nylon, it is as rugged as the rescuers carrying it

What horror, we wonder, was the firefighter recalling when anonymously penning these poignant words about his foe?
*"It feels not for the poor, cares not for the old,
it loves not the children, and fears not the bold ...
If not for those few, who fear not the beast,
it would conquer the world, with all as its feast."*

This "beast" is battled today by more than a million good American men and women nationwide. According to the National Fire Data Center, the vast majority are volunteers. In fact, only 12 percent or so of America's fire departments are staffed primarily by paid professionals, a statistic of pride to the volunteer. And whether paid or not, all firefighters know that dozens of their number are likely to die each year in the line of duty. Why would anyone willingly undertake this risk?

"Well, firefighters like to joke that they get to play

with big toys like pumper trucks, but most feel that they are engaged in a truly humanitarian service," says Paul Fithian, a Long Beach, Indiana, volunteer firefighter and former senior development specialist with DuPont Engineering Polymers. "I can't speak for all firefighters, but I know enough of them to know that it's a heartfelt calling, and that people who do this feel there's no greater personal reward than to save a life, even as they risk their own."

Fithian, now in his fourth year as a firefighter, says he volunteered as a way of giving something back to the community he's loved all his life. "I grew up in Long Beach, but only returned four years ago after living in various locations during my 20 years with DuPont. I believe we all owe something to the places we choose to call home, and when friends suggested an opportunity in fire service, I didn't have to think hard about it at all. I knew there was no better way to serve my community."

Long Beach is a small community some 60 miles from Chicago, situated on the southern shore of Lake Michigan. With about 1,000 homes in the community, the fire department faces few of the challenges of big city departments, yet its members are trained for a broad range of emergency situations. "We have 35 volunteers," Fithian says. "Some are only firefighters, others only emergency medical technicians, and some are both. But regardless of our specific assignments, we put a lot of emphasis on training and preparedness. We not only meet the needs of our own community, we're on call to assist other departments in our county. We have to be ready for anything."

Human rescue, of course, is the firefighter's highest calling. Between 1994 and 1998, an annual average of 4,400 Americans died in fires, and another 25,100 were injured. The United States has one of the highest fire death rates in the industrialized world, with more fire-related fatalities than from all other natural disasters combined.

"This is one reason firefighters need the best tools technology can provide," says Fithian. "I was fortunate to be involved with the development of the new Res-Q-Rench manufactured by Task Force Tips of Valparaiso, Indiana. This tool is something like a Swiss Army® knife.

It's a 'do-it-all' tool giving firefighters all the standard functions found in an aluminum spanner, but much more. Spanners are



Long Beach, Indiana, firemen Ray Blowers (left) and Paul Fithian with the tools of their trade: pumper truck, protective clothing and Res-Q-Renches from Task Force Tips.

carried by most firefighters and rescue workers and are used to tighten and loosen hose connections, open and shut gas valves, and function as window pry bars. The Res-Q-Rench does all that, plus it has an embedded steel blade to cut through tough fabric, such as sea belts restraining crash victims, or apparel caught in wreckage."

Another advantage of Res-Q-Rench is its embedded tungsten carbide punch. "It allows us to quickly shatter safety glass, and that's a big advantage over the broader surface of a metal spanner," says Fithian. "Seconds count when you're trying to get to a fire victim so anything that cuts rescue time is a godsend. We have equipped all 35 members of our department with this tool."

Made of DuPont Zytel® ST super tough nylon resin, the new Res-Q-Rench weighs only five ounces, which is about 75 percent less than most metal spanners on the market. "It also has a snap-lock metal hinge pin, so it easily folds to fit a worker's coat pocket," says Dave Kolacz, a design engineer with Task Force Tips. "Unfolded for duty, Res-Q-Rench measures just over 14 inches. We decided to make Res-Q-Rench out of DuPont

Zytel® because we needed light weight, but with exceptional stiffness, strength and impact resistance."

Zytel®, being a polymer, also allows emergency workers to use the wrench as a bite stick for pain victims. A metal spanner's surface would be too hard for that.

Kolacz says DuPont was instrumental in helping his firm engineer Res-Q-Rench. "We worked very closely with Paul Fithian, who helped us with materials evaluation and selection. For example, we wanted a polymer hat could be cast in various colors and shapes, and hat could be laser-etched. This enables a fire department to etch in a firefighter's name, or the department's name, and that's of value after a fire when mislaid tools have to be matched up with their owners. And it really helped that Paul was himself a volunteer firefighter as well as an engineer. He understood our mission as well as we did."

Res-Q-Rench sells for \$24.95 per unit. If you'd like to know more about this product, information is available at the company's Web site www.tft.com. Or phone -800-348-2686. For more information about DuPont Zytel® ST super tough nylon resin, go to www.dupont.com/enggpolymer

Zytel® Helps Hose Nozzles, Too

A super tough nylon resin, Zytel® is an ideal material for many equipment applications requiring stiffness, high impact strength and resilience. Task Force Tips now offers its renowned Mid-Matic fire hose nozzles with ergonomic, form-fitting pistol grips of Zytel®.

"These nozzles are easier to hold and control under water pressure," says Dave Kolacz of Task Force Tips. "And because they are Zytel®, they won't bend or become distorted in shape when dropped like aluminum nozzles."

Kolacz says fire departments also like the seven color options available with Zytel®. "Pumper trucks have color-coded valves, and corresponding nozzle colors help identify which hose goes to which nozzle. If a firefighter is holding a blue nozzle and needs a pressure increase, the operator knows to adjust the blue valve. Aluminum nozzles are originally powder-coated with colors, too, but the coating isn't nearly as durable as molded-in color, and durability counts big in firefighting." Task Force Tips credits Zytel® ST with reduced manufacturing costs. Grips molded in Zytel® ST are ready for use with no secondary finishing. Aluminum, by contrast, requires machining, hard coating and powder coating. "These nozzles of Zytel® perform like aluminum nozzles in all respects, but with many additional advantages. Our customers couldn't be happier."



Dave Kolacz (left) of Task Force Tips and Paul Fithian, formerly of DuPont Polymers, worked together to enhance product performance and reduce costs in creating the Res-Q-Rench.



The color palette of DuPont Zytel® ST 801, molded in for identification and durability.

