POLYPRENE™

Polyprene is a specially formulated copolymer sheet stock material used in the construction of fire service products. The resin used in making *Polyprene* is made up of a combination of ethylene and propylene monomers which results in stronger physical properties in either high or low temperature applications.

For example, single polymers such as polyethylene and polypropylene, by themselves, would not have the same strong physical properties in low temperatures as the Polyprene copolymer. Polyprene is ten times stronger than either polyethylene or polypropylene alone at zero degrees Fahrenheit.

The chemistry of copolymers originated in the automobile industry during the search for materials which could be used as master brake cylinders. Master brake cylinders are subject to extreme temperature variations and must withstand the attack of hydrocarbons in the brake fluid. The copolymer formulation originally developed for the master cylinder brake application has evolved into the formulation used in *Polyprene* copolymer.

Polyprene is originated from the Aristech Company in Pittsburgh, Pennsylvania. The polymer material used is a pure virgin resin. *Polyprene* copolymer is the best material money can buy for use in the thermoplastic welded fabrications for the fire service industry. The material has had years of testing in the form of booster and foam tank construction. In addition, the material is well-suited for truck bodies and components because *Polyprene* is strong enough to do the job, but also flexible enough to resist cracking and fatigue due to constant movement.

Polyprene is also well suited to use with electronic forming and bending machines. Bent Edge® technology, coupled with extrusion welding, has resulted in the strongest thermoplastic welding the fire service has ever known. Typically, fire service products are made from 3/8”, ½” and ¾” thick sheet stock.

Polymer components for motor vehicles are not new. Many automobiles manufactured today are comprised of many polymer components with some automobiles having 26% of the vehicle comprised of polymer products. *Polyprene* is paintable and can be repaired easily if inadvertently damaged. *Polyprene* will not rust, corrode, crack, chip or peel. *Polyprene* welds are impervious of microbial attack. Also, *Polyprene* is lighter than steel, aluminum or fiberglass in the same application. As the fire service industry continues to demand lighter weight, more durable and longer lasting fire service equipment, *Polyprene* copolymer products will meet that need.

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