



DESIGNERS AND FABRICATORS – INDUSTRIAL PLASTIC PROCESS EQUIPMENT – PLASTIC PIPING SYSTEMS DISTRIBUTOR

2500 Route 168 Georgetown, PA 15043 • phone: 724-947-4949 • fax: 724-947-5150

Characteristics & Benefits of Polypropylene

Introduction

During the past thirty years polypropylene has gained wide acceptance for use in corrosive applications where previously steel vessels with a rubber & brick lined interior and coated exterior were used. Polypropylene has also been the material of choice to replace tanks and other vessels fabricated from specialty metals such as stainless steel because of reduced original cost and long term cost savings benefits over the life of the equipment.

Characteristics

Polypropylene has the following advantages over conventional materials previously used.

- High chemical and corrosion resistance
- Light weight and rigid
- High tensile strength
- Excellent abrasion resistance
- Low moisture absorption
- Easily machined and cut
- Easy to maintain and clean
- Excellent thermal insulating properties
- Excellent dielectric properties
- Long life span

Benefits

Polypropylene provides superior qualities and is the most versatile and cost effective plastic in comparison to other thermo-forming and polyolefin materials. It has good impact strength, surface hardness, dimensional stability and excellent abrasion resistance. Polypropylene is resistant to a wide variety of acids, alkalis and solvent solutions with a temperature range up to 200°F.

Polypropylene is available in Homopolymer for general use and Copolymer, where higher impact qualities are required. The most commonly used colors include natural, black and grey. The black and grey pigments have better UV qualities and an additional UV package can be added for outdoor use. Polypropylene is also available in a flame retardant grade. It is USDA approved and meets FDA requirements for food contact.

Polypropylene is a homogeneous material that has the same corrosion resistant properties throughout which eliminate the need for additional maintenance such as re-coating the inside or outside to guard against corrosion. Carbon steel tanks, however, require a two step process during fabrication to get the necessary protection required for the application.

Handling, installation and relocation of polypropylene equipment is easier because polypropylene is lighter than most other materials used in fabrication. The light weight allows for less expensive structural supports and concrete floors to be required.

Modifications and repairs are easily made with no advanced preparation needed on the material with little down time and usually no need to remove the equipment from service. Our customers have reported that the polypropylene equipment we have supplied has reduced maintenance cost and provided less disruption in production time.

C & E Plastics will design, engineer and custom fabricate thermoplastic equipment to meet your company's specific needs. We build our equipment using the latest fabrication technology and techniques in the industry. Our custom fabricated polypropylene equipment will provide our customers with the best qualities and versatility for their requirements.

Clifford D. Crighton, *President*
e-mail clifford@ceplastics.com