



Water and Waste Water

Plastics have been instrumental in reclaiming waste water into safe water for more than seven decades. Plastics are also being put to work anywhere there's a need for durable, long-lasting, maintenance-free water transport systems.

Applications

- Potable water systems (valve and pump components)
- Irrigation systems (bearings, nozzles, pivot bushings)
- Aquaculture
- Specialized chemical delivery systems
- Reclamation process piping
- Sprinkler/water aeration systems
- Hot and cold water distribution systems
- Plumbing pipes and fittings
- Double contained piping systems
- Water and sewage treatment — paddles, weirs, wear shoes, sprockets, chain guides
- Gravity and force main industrial and municipal sewer systems
- Ultra pure water systems
- Submerged marine installations
- Ocean thermal energy conversion projects, designed to produce energy and air condition buildings
- Desalinization
- Grating and stair systems



- Provides superior protection for public health when used in water treatment applications
- Fabrication can be done on-site with simple hand tools; no torches or heavy equipment needed
- Energy savings with dynamic systems (a result of plastics lighter weight and lower specific gravity)

Did you know?

On average, the water footprint of an American is 32,911 glasses a day, or 751,777 gallons per year. Of that amount, 96 percent is used to grow food, make clothing and generate energy.

Advantages May Include

- Lightweight
- Impact resistant
- Weather resistant
- Chemical and corrosion resistant
- Easy to fabricate
- Excellent weatherability
- Quieter than metal pipes (no “water hammer”)
- Easy and safer to install
- Low maintenance
- Easy to weld, install and operate
- Excellent flexibility and bending radius (which eliminates the need for custom fittings)
- Surge-resistant

Materials

- Acetal (POM)
- Acrylonitrile-Butadiene-Styrene (ABS)
- Cast Nylon (PA)
- Chlorinated Polyvinyl Chloride (CPVC)
- Ethylene-Chlorotrifluoroethylene (ECTFE)
- Ethylene-Vinyl Acetate (EVA)
- High-Density Polyethylene (HDPE)
- Low-Density Polyethylene (LDPE)
- Polymethyl Pentene (PMP)
- Polypropylene (PP)
- Polyvinyl Chloride (PVC)
- PVC/Acrylic Alloy
- Polyvinylidene Fluoride (PVDF)
- Thermoplastic Elastomer (TPE)
- Ultra-High Molecular Weight Polyethylene (UHMW-PE)



Environmental and Safety

Considering the total carbon footprint, including costs of raw materials, manufacture, transport, fabricate, install, maintain, plastics compare favorably with more traditional materials. Also, plastics are safer to handle and install. When you consider that most plastics are readily recyclable, they can become the most environmentally responsible and safest choice for many demanding water and waste water applications.

