



ENGINEERED SYSTEMS

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## Comparison of Process Tank and Vessel Materials

| Tank or Vessel Material     | Material and Fabrication Cost | Thermal Insulation | Max Operating Temp | Outdoor UV Resistance | Impact Resistance                    | Chemical Versatility |
|-----------------------------|-------------------------------|--------------------|--------------------|-----------------------|--------------------------------------|----------------------|
| Polypropylene (Homopolymer) | Low                           | Most               | 180 - 230 F        | Poor to Moderate      | Moderate<br>Excellent with Copolymer | High                 |
| 304 Stainless Steel         | High                          | Low                | 1000 - 1500 F      | Excellent             | Good                                 | Moderate             |
| Fiberglass                  | Moderate                      | Moderate           | 250 F              | Excellent             | Poor                                 | Moderate             |
| PVC (Type II)               | Low                           | Moderate           | 140 F              | Good                  | Good                                 | High                 |
| Polystyrene <sup>®</sup>    | Moderate                      | Moderate           | 140 - 180 F        | Excellent             | Good                                 | High                 |
| Polyethylene <sup>®</sup>   | Low to Moderate               | Moderate           | 140 F              | Excellent             | Moderate                             | High                 |

### Notes:

This table is used only as a general guide when selecting material of construction for chemical process tanks, vessels, scrubbers, and other equipment. Chemistry, Temperature, Pressure, and other process conditions can have a major affect on performance of these materials. Please consult KCH for the best materials for your application.