

Selection of materials

Overview



Each of the plastic materials used for piping systems has a unique set of properties that make a particular material suitable for some applications and in some cases not for others. In many applications, there will be a choice of materials suitable for a particular process installation, and when this occurs there are many other factors that may be considered, including material cost and ease of installation.

When choosing the correct material for a particular application, the designer must consider a number of key factors. Optimum life expectancy can only be achieved through the selection of the most cost effective thermoplastic piping material. In this respect, three principal factors must be considered to determine the best choice of material to be used:

- 1. What is the fluid to be handled?**
- 2. What is the operating (and design) pressure?**
- 3. What is the operating (and design) temperature?**

Inevitably, there will also be other factors that influence material selection. Some of these considerations will include:

- What pipe size is required?
- What is the life expectancy of the system?
- Will the pipe run above or below ground?
- What are the environmental conditions?
- Will the pipe be exposed to UV light?
- Is there a risk of impact damage?
- Will the fluid carry suspended solids?

To assist the designer in selecting the correct type of thermoplastic piping for the intended application, the following pages provide a guide to the principal selection criteria. Detailed assistance is readily available from our technical department upon request.

