

Cotton



Chars at
148°C



Very
Good



Chemical Resistance

- Degraded by acids in high concentration or at high temperatures
- Resistant to alkalis
- Degraded by organic solvents and sea water



Advantages

- Exceptional Handling



Disadvantages

- Susceptible to deterioration from moisture, rot & mildew
- Strength can be dramatically affected by basic environmental variables such as the level of humidity

Manila



Chars at
148°C



Very
Good



Chemical Resistance

- Degraded by acids in high concentration or high temperature
- Degraded by alkalis
- Resistant to organic solvents



Advantages

- Very good creep resistance (gradual elongation under load)



Disadvantages

- Poor microbial resistance
- Can be rough to handle

Polypropylene



Melts at
165°C



Fair



Chemical Resistance

- Resistant to acids
- Resistant to alkalis
- Resistant to organic solvents, soluble in chlorinated hydrocarbons



Advantages

- Light weight
- Inexpensive
- Unaffected by water
- Excellent microbial resistance



Disadvantages

- Low strength relative to other synthetic fibers
- Susceptible to creep (gradual elongation under load)

Polysteel



Melts at
140°C



Fair



Chemical Resistance

- Resistant to acids
- Resistant to alkalis
- Resistant to organic solvents, soluble in chlorinated hydrocarbons



Advantages

- Light weight
- Good handling characteristics
- Unaffected by water
- Higher strength than polypropylene
- Excellent microbial resistance



Disadvantages

- Susceptible to creep (gradual elongation under load)

Nylon



Nylon 6
melts at 218°C
Nylon 6.6
melts at 258°C



Good



Chemical Resistance

- Resistant to weak acids
- Degraded by concentrated, strong acids
- Unaffected by most alkalis at room temperature
- Resistant to organic solvents, soluble in phenols and formic acid



Advantages

- Good strength
- Excellent microbial resistance



Disadvantages

- Susceptible to creep (gradual elongation under load)
- Abrasion resistance of wet nylon is generally poor
- Minor loss of strength when wet; strength is re-gained once rope dries

Polyester



Melts at
254°C



Very
Good



Chemical Resistance

- Resistant to mineral acids
- Degraded by strong sulphuric acids
- Degraded by strong alkalis at high temperature
- Resistant to organic solvents, soluble in phenols



Advantages

- Excellent microbial resistance
- Good strength & durability
- Unaffected by water



Disadvantages

- None

Kevlar®



Decomposes
at 500°C



Poor



Chemical Resistance

- Resistant to weak acids, bases, water & salt water
- Degraded by strong acids & bases in high concentration or high temperature



Advantages

- Exceptional strength
- Exceptional heat resistance



Disadvantages

- Poor shock loading qualities
- Poor abrasion resistance
- Expensive

Dyneema®



Melts at
145°C



Fair



Chemical Resistance

- Acid & alkali resistant.
- Resistant to bleaches, other oxidizing agents and most solvents.
- Unaffected by sea water



Advantages

- Good strength
- Unaffected by water



Disadvantages

- Susceptible to creep (gradual elongation under load)
- Expensive

Technora®



Decomposes
at 500°C



Poor



Chemical Resistance

- Resistant to acids
- Resistant to alkalis
- Resistant to organic solvents
- Resistant to sea water and steam



Advantages

- Good strength
- Unaffected by water



Disadvantages

- Expensive

Cancord Inc. is recognized as a leading manufacturer within the industry. Our ongoing investment into the best manufacturing equipment and materials available ensures that we will continue to provide the distinct quality and service that have become synonymous with our name.