

TYPES OF ROPE

The two most popular natural-fibre ropes are manila and hemp. The common man-made-fibre (synthetic) ropes are nylon, polyester and polypropylene. You'll find some characteristics of these popular types of rope in the chart below.

Characteristics of popular types of rope

Type	Nylon	Polyester	Polypropylene	Natural Fibre
Cost	high	high	medium	medium low
Ease of Knotting	fair/good	fair/good	very poor	good
Tensile Strength	high	high	medium	low
Effect of Water on Strength	loss	slow gain	gain	varies
Stretch	high	low	low	low
Shock Absorption	good	fair	poor	very poor
Flexing Endurance	good	good	poor	poor
Behaviour on Water	sinks	sinks	floats	sinks
Resistance to Sunlight	fair	good	poor	varies
Resistance to Heat	fair	fair	poor	varies
Approximate Melting Point	220 C	250 C	160 C	burns
Resistance to Wet Freezing	fair	good	poor	very poor
Resistance to Damp Storage	good	good	good	very poor
Resistance to Chemicals	fair (avoid acids)	fair (avoid alkalis)	fair (avoid solvents)	very poor
Electrical Insulation (Dry)	poor	good	good	poor

The following pages (7, 8, 9, 10) show how to tie some standard knots in man-made-fibre (synthetic) ropes.