

SAMSON TENEX-TEC - Technical Parameters

Imperial and metric values shown in separate columns

SAMSON TENEX-TEC is a 12-strand single-braid polyester rope designed for arborist rigging and for producing spliced slings. The table below reproduces the manufacturer's size, weight and strength data with imperial and metric units separated for easier use in product descriptions and technical documentation.

How to read the table

Diameter is listed separately in inches and millimetres. Weight is listed as lb per 100 ft and kg per 100 m. Average strength is the manufacturer's average spliced strength. Minimum strength is the manufacturer's minimum spliced strength and should be used when a conservative value is required. The manufacturer states that the published strength values apply to rope with a splice.

Diameter (in)	Diameter (mm)	Weight (lb/100 ft)	Weight (kg/100 m)	Average strength (lb)	Average strength (kg)	Minimum strength (lb)	Minimum strength (kg)
1/4	6	2.2	3.3	3,400	1,500	3,100	1,400
5/16	8	3.2	4.8	4,700	2,100	4,200	1,900
3/8	9	4.3	6.4	6,100	2,800	5,500	2,500
7/16	11	6.5	9.7	9,500	4,300	8,600	3,900
1/2	12	9.2	13.7	13,100	5,900	11,800	5,300
5/8	16	14.8	22.0	18,800	8,500	16,900	7,700
3/4	18	17.7	26.3	24,800	11,200	22,300	10,100
7/8	22	26.7	39.7	34,200	15,500	30,800	14,000
1	24	34.7	51.6	44,500	20,200	40,100	18,200
1 1/4	30	55.0	81.8	62,000	28,100	55,800	25,300

Highlighted row: the manufacturer lists the 3/4 in size as 18 mm. This is the size commonly sold under the rounded commercial designation 19 mm.

Elongation and interpretation of the 19 mm commercial size

Elongation

Load as a percentage of rope strength	Elongation
10%	1.4%
20%	2.3%
30%	3.0%

Size used for the SAFEBLOC TENEX-TEC ULTRA SLING

For the product commercially described as 19 mm, use the manufacturer's 3/4 in / 18 mm row. The difference results from rounded commercial sizing; it is not a different rope construction.

Parameter	Value
Manufacturer size	3/4 in / 18 mm
Commercial designation	19 mm
Weight	17.7 lb/100 ft / 26.3 kg/100 m (263 g/m)
Average spliced strength	24,800 lb / 11,200 kg (approximately 109.8 kN)
Minimum spliced strength	22,300 lb / 10,100 kg (approximately 99.0 kN)
Elongation at 10% of rope strength	1.4%
Material	Polyester
Construction	12-strand single braid

Important note

The values above describe the rope itself and its published spliced strength. The rated strength and working load limit of a finished sling or complete rigging assembly must also take into account the splice design, manufacturing process, hardware and any destructive testing or certification applied to the finished product.

Source: SAMSON TENEX-TEC manufacturer data sheet / product page. Values converted to kN are rounded.