Synchronous Belt Data Summary

Belt Tensile Properties

Belt Type	Pitch		Belt Width		Min. Total Ult. Strength		Rec. Working Tension (1" Width)		Avg. Belt Tensile Modulus (1" Width)
	(in)	(mm)	(in)	(mm)	(lb)	(N)	(lb)	(N)	(lb/in/in)
MXL Timing	0.080	2.03	1.00	25.4	1000	4448	18	80	23,000
MXL TruMotion	0.080	2.03	1.00	25.4	1000	4448	15	67	23,000
XL Timing	0.200	5.08	1.00	25.4	2200	9786	28	125	27,000
XL TruMotion	0.200	5.08	1.00	25.4	2200	9786	23	102	27,000
L Timing	0.375	9.53	1.00	25.4	2200	9786	49	218	29,500
L TruMotion	0.375	9.53	1.00	25.4	2200	9786	40	178	29,500
H Timing	0.500	12.7	1.00	25.4	4000	17800	135	600	88,000
3M PowerGrip HTD	0.118	3.00	1.00	25.4	2200	9786	64	285	30,000
3M HTD TruMotion	0.118	3.00	1.00	25.4	2200	9786	52	231	30,000
5M PowerGrip HTD	0.197	5.00	1.00	25.4	4400	19573	102	454	86,000
5M HTD TruMotion	0.197	5.00	1.00	25.4	4400	19573	83	369	86,000
8M PowerGrip HTD	0.315	8.00	1.00	25.4	5400	24000	178	792	70,000
14M PowerGrip HTD	0.551	14.0	1.00	25.4	7800	34700	375	1668	133,000
2M PowerGrip GT2	0.079	2.00	1.00	25.4	1200	5338	25	111	18,000
2M GT TruMotion	0.079	2.00	1.00	25.4	1200	5338	20	89	18,000
3M PowerGrip GT2	0.118	3.00	1.00	25.4	2200	9786	114	507	30,000
3M GT TruMotion	0.118	3.00	1.00	25.4	2200	9786	92	409	30,000
5M PowerGrip GT2	0.197	5.00	1.00	25.4	4400	19573	160	712	86,000
5M GT TruMotion	0.197	5.00	1.00	25.4	4400	19573	130	578	86,000
8M PowerGrip GT2	0.315	8.00	1.00	25.4	5100	22700	380	1690	110,000
14M PowerGrip GT2	0.551	14.0	1.00	25.4	7800	34700	650	2890	121,000

<u>Notes:</u>

1. All table data is based upon standard neoprene / fiberglass belt constructions.

2. Minimum Total Ultimate Strength values are based upon total tension (2 Belt Spans).

3. Minimum Total Ultimate Strength data is not appropriate for use in belt drive design.

4. To calculate Minimum Total Ultimate Strength values for belt widths less than 1" wide:
    1/2" - 1": Proportion directly
    1/4" - 1/2": Proportion directly and reduce by 10%
    Below 1/4": Proportion directly and reduce by 18%

5. Recommended belt working tensions are based upon:
    Near minimum recommended pulley/sprocket diameters
    Operating speeds below 300 rpm
    The working tension for minimum belt width extrapolated out to a full 1" belt width

6. To calculate Recommended Belt Working Tensions, proportion directly from 1" table value

7. To calculate Belt Tensile Modulus Values for belt widths less than 1", refer to note #4. Belt Tensile Modulus is given on a unit strain basis:

$$Belt\ Elongation = \frac{(Belt\ Span\ Length)\ x\ (Tensile\ Load)}{Tensile\ Modulus}$$