

Technical Bulletin

PHILLYSTRAN®HIGH PERFORMANCE TOWER GUY, HPTG-I ARAMID

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The excellent dielectric properties of aramid fiber plus its strength-to-weight ratio five times greater than steel plus its low-stretch, low-creep characteristics add up to an ideal material for broadcast tower guys. Today's Phillystran tower guying systems based on aramid fiber are the result of long years of experience. Starting in 1973, Phillystran's tower installations include megawatt arrays as well as towers up to 1300 feet high. Phillystran HPTG-I systems eliminate problems associated with EHS steel cable such as:



- Electromagnetic interference (EMI)
- Radio frequency interference (RFI)
- Signal suppression
- Directional irregularities
- Zapping and white-noise arcing associated with ceramic insulators interference with TV reception near broadcast sites

PART NUMBER	BREAK STRENGTH		DIAMETER		WEIGHT		CORONA SOCKET	REEL LENGTH
	LB	kN	IN	mm	LBS/1000 FT	kg/km	PART NUMBER	FT
HPTG 1200I	1,200	5.3	0.17	4	11	16	CS1200	10,000
HPTG 2100I	2,100	9.3	0.22	6	18	27	CS2100	10,000
HPTG 4000I	4,000	18	0.30	8	33	50	CS4000	10,000
HPTG 6700I	6,700	30	0.37	9	50	75	CS6700	10,000
HPTG 11200I	11,200	50	0.44	11	70	105	CS11200	5,000
HPTG 15400I	15,400	69	0.51	13	95	140	CS15400	5,000
HPTG 20800I	20,800	93	0.57	14	115	170	CS20800	5,000
HPTG 27000I	27,000	120	0.65	17	150	225	CS27000	5,000
HPTG 35000I	35,000	156	0.69	18	170	250	CS35000	4,000
HPTG 42400I	42,400	189	0.84	21	230	350	CS42400	3,000
HPTG 58300I	58,300	259	0.96	24	300	450	CS58300	2,000
HPTG 85000I	85,000	378	1.14	29	420	630	CS85000	2,000
HPTG 130000I	130,000	578	1.56	40	740	1100	CS130000	1,000
HPTG 2000001	200,000	890	1.87	47	1050	1560	CS200000	800
HPTG 252000I	252,000	1,121	2.08	53	1290	1920	CS252000	600

Weights and Dimensions can vary

CAUTION: Break Strength: The breaking strength of a rope is the load at which a new rope will break when tested under laboratory conditions. Break strength should not be mistaken for safe working load. **Safe Working Load:** Because of the wide range of rope use, rope condition and the degree of risk of life or property, it is not possible to make a blanket recommendation for safe working load. It is ultimately dependent on the rope user to determine what percentage of break strength is their own safe working load. **Wear:** Ropes wear out with use; the more severe the usage, the greater the wear. It is often not possible to detect wear on a rope by visible signs alone. Therefore, it is recommended that the rope user determine a retirement criteria for ropes in their application. For assistance in developing safe working load and retirement criteria for each application please call or write Phillystran, Inc.

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