

PROPIEDADES DEL ACERO DE PRETESADO

Type	U.S. Customary			Metric		
	Nominal Diameter (in.)	Nominal Area (in. ²)	Nominal Weight (lb/ft)	Nominal Diameter (mm)	Nominal Area (mm ²)	Nominal Mass (kg/m)
Seven-wire strand (Grade 250)	$\frac{1}{4}$ (0.250)	0.036	0.12	6.350	23.2	0.179
	$\frac{5}{16}$ (0.313)	0.058	0.20	7.950	37.4	0.298
	$\frac{3}{8}$ (0.375)	0.080	0.27	9.525	51.6	0.402
	$\frac{7}{16}$ (0.438)	0.108	0.37	11.125	69.7	0.551
	$\frac{1}{2}$ (0.500)	0.144	0.49	12.700	92.9	0.729
	(0.600)	0.216	0.74	15.240	139.4	1.101
Seven-wire strand (Grade 270)	$\frac{3}{8}$ (0.375)	0.085	0.29	9.525	54.8	0.432
	$\frac{7}{16}$ (0.438)	0.115	0.40	11.125	74.2	0.595
	$\frac{1}{2}$ (0.500)	0.153	0.53	12.700	98.7	0.789
	(0.600)	0.215	0.74	15.240	138.7	1.101
Prestressing wire	0.192	0.029	0.098	4.877	18.7	0.146
	0.196	0.030	0.10	4.978	19.4	0.149
	0.250	0.049	0.17	6.350	31.6	0.253
	0.276	0.060	0.20	7.010	38.7	0.298

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	Nominal Diameter (in.)	Nominal Area (in. ²)	Nominal Weight (lb/ft)	Nominal Diameter (mm)	Nominal Area (mm ²)	Nominal Mass (kg/m)
Prestressing bars (smooth)	$\frac{3}{4}$	0.44	1.50	19.050	283.9	2.232
	$\frac{7}{8}$	0.60	2.04	22.225	387.1	3.036
	1	0.78	2.67	25.400	503.2	3.973
	$1\frac{1}{8}$	0.99	3.38	28.575	638.7	5.030
	$1\frac{1}{4}$	1.23	4.17	31.750	793.5	6.206
	$1\frac{3}{8}$	1.48	5.05	34.925	954.8	7.515
Prestressing bars (deformed)	$\frac{5}{8}$	0.28	0.98	15.875	180.6	1.458
	$\frac{3}{4}$	0.42	1.49	19.050	271.0	2.217
	1	0.85	3.01	25.400	548.4	4.480
	$1\frac{1}{4}$	1.25	4.39	31.750	806.5	6.535
	$1\frac{3}{8}$	1.58	5.56	34.925	1006.5	8.274

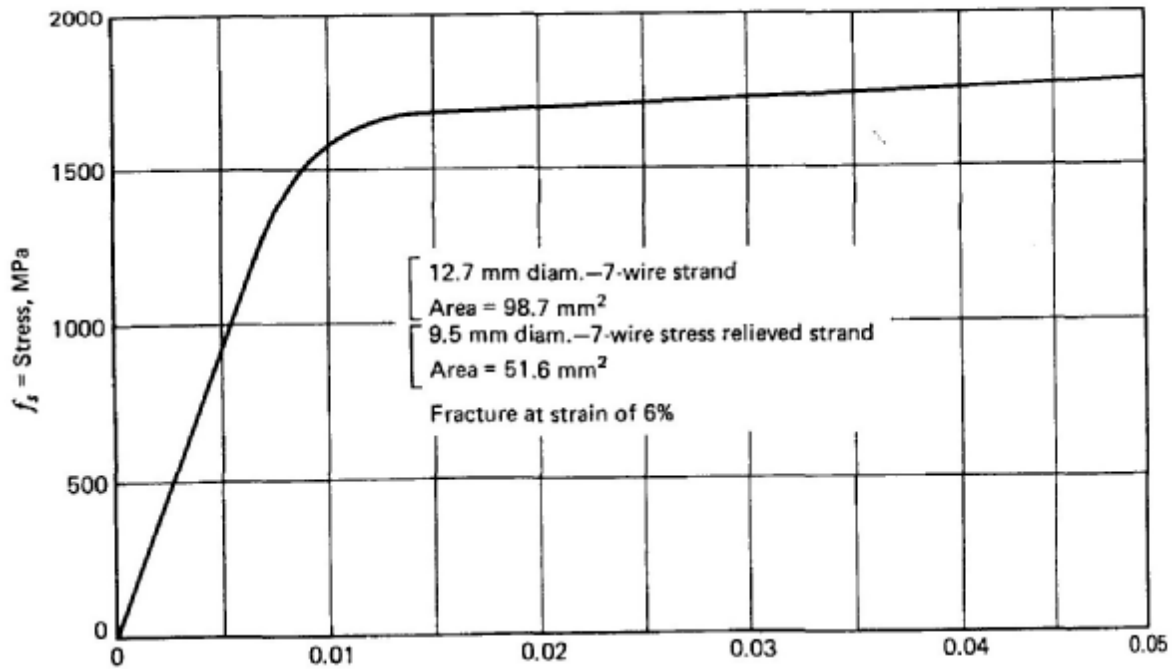


Figura 1. Curva Tensión – Deformación típica para acero de pretensado.

Referencia: T.Y. Lin, "Design of Prestressed Concrete Structures", 3ª edición, 1982, Ed. John Wiley & Sons.