

PERFORMANCE DATA FOR: PEM® FASTENERS INSTALLED INTO COPPER



SELF-CLINCHING NUTS

(All dimensions are in inches)

UNIFIED	Type	Thread Code	Shank Code	Test Sheet Thickness & Material	Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)
	S	440	1	.040" Cu-ETP Copper	2320	117	19.5
	S	832	1	.040" Cu-ETP Copper	2900	166	23.9
	S	032	2	.060" Cu-ETP Copper	2900	243	46.9
	S	0420	1	.060" Cu-ETP Copper	3100	233	76.1
	S	0518	1	.060" Cu-ETP Copper	4000	359	102.7

(All dimensions are in millimeters)

METRIC	Type	Thread Code	Shank Code	Test Sheet Thickness & Material	Installation (kN)	Pushout (N)	Torque-out (N-m)
	S	M3	1	1 mm Cu-ETP Copper	10.3	519	2.2
	S	M4	1	1 mm Cu-ETP Copper	12.9	740	2.7
	S	M5	2	1.5 mm Cu-ETP Copper	12.9	1080	5.3
	S	M6	1	1.5 mm Cu-ETP Copper	13.8	1037	8.6
	S	M8	1	1.5 mm Cu-ETP Copper	17.8	1598	11.6

SELF-CLINCHING STUDS

(All dimensions are in inches)

UNIFIED	Type	Thread Code	Test Sheet Thickness & Material	Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)	Pull Thru (lbs.)
	HFE	032	.040" Cu-ETP Copper	6500	190	73.5	2338
	HFE	0420	.040" Cu-ETP Copper	6900	212	122.1	2967
	HFE	0518	.060" Cu-ETP Copper	13700	367	309.8	6250

(All dimensions are in millimeters)

METRIC	Type	Thread Code	Test Sheet Thickness & Material	Installation (kN)	Pushout (N)	Torque-out (N-m)	Pull Thru (N)
	HFE	M5	1 mm Cu-ETP Copper	28.9	847	8.3	10400
	HFE	M6	1 mm Cu-ETP Copper	30.7	941	13.8	13200
	HFE	M8	1.5 mm Cu-ETP Copper	60.9	1634	35	27800

(All dimensions are in inches)

UNIFIED	Type	Thread Code	Test Sheet Thickness & Material	Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)	Pull Thru (lbs.)
	THFE	0420	.031" Cu-ETP Copper	5710	134	82.3	2900
	THFE	0518	.060" Cu-ETP Copper	1151	151	57.5	6070

(All dimensions are in millimeters)

METRIC	Type	Thread Code	Test Sheet Thickness & Material	Installation (kN)	Pushout (N)	Torque-out (N-m)	Pull Thru (N)
	THFE	M6	0.8 mm Cu-ETP Copper	25.4	598	9.3	12900
	THFE	M8	0.8 mm Cu-ETP Copper	51.2	672	6.5	27000

PERFORMANCE DATA FOR: PEM® FASTENERS INSTALLED INTO COPPER



SELF-CLINCHING STANDOFFS

(All dimensions are in inches)

UNIFIED	Type	Thread Code	Test Sheet Material							
			.040" Cu-ETP Copper				.060" Cu-ETP Copper			
			Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)	Pull Thru (lbs.)	Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)	Pull Thru (lbs.)
	S0	440	2113	207	8.9	353	3417	245	14.2	382
	S0	632	4204	451	19.5	590	4204	451	18.6	741
	S0	832	—	—	—	—	5508	491	38.9	854
	S0	032	—	—	—	—	5508	491	38.9	854

(All dimensions are in millimeters)

METRIC	Type	Thread Code	Test Sheet Material							
			1 mm Cu-ETP Copper				1.5 mm Cu-ETP Copper			
			Installation (kN.)	Pushout (N)	Torque-out (N-m)	Pull Thru (N)	Installation (kN)	Pushout (N)	Torque-out (N-m)	Pull Thru (N)
	S0	M3	9.4	922	1	1570	15.2	1090	1.6	1698
	S0	3.5M3	18.7	2005	2.2	2626	18.7	2005	2.1	3295
	S0	M4	—	—	—	—	24.5	2186	4.4	3800
	S0	M5	—	—	—	—	24.5	2186	4.4	3800