

Ramset fasteners may be specified by their type or catalog number to satisfy fastening requirements.

PIN SPECIFICATIONS

- Made from AISI 1070 steel. Austempered to a core hardness of 52-56 Rc
- Typical tensile strength: 270,000 psi
- Typical shear strength: 162,000 psi
- **STANDARD FINISHES**
Mechanical zinc plate to a minimum thickness of .0002 meets requirements of ASTM B695—Class 5 Type 1

APPROVALS/LISTINGS

- **ICC Evaluation Service, Inc.**
#ESR-1799 Powder Pins & Clips
- **City of Los Angeles**
#RR-22668 Powder pins



FASTENERS IN NORMAL WEIGHT CONCRETE

FASTENER SERIES	SHANK DIAMETER	EMBED	2000 PSI		4000 PSI		6000 PSI	
			TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
TE	0.157	3/4	-----	-----	71 / 559	137 / 685	109 / 753	142 / 712
		1	-----	-----	278 / 1390	216 / 1421	214 / 1313	400 / 1998
		1-1/4	-----	-----	377 / 1886	317 / 1846	415 / 2074	349 / 1858
		1-1/2	-----	-----	242 / 1211	479 / 2393		
TEC100	0.157	7/8	-----	-----	207 / 1035			

FASTENER IN LIGHTWEIGHT CONCRETE

FASTENER SERIES	SHANK DIAMETER	EMBED	3000 Lt WT		3000 Lt Wt on W Deck Lower Flute	
			Tension	Shear	Tension	Shear
TE SERIES	0.157	3/4	152 / 1010	159 / 998	106 / 529	265 / 1326
		1	325 / 1625	347 / 1737	152 / 761	327 / 1634
		1-1/4	358 / 1790	437 / 2239	164 / 821	330 / 1650
		1-1/2	466 / 2332	478 / 2392	238 / 1191	448 / 2240
TEC100	0.157	7/8	-----	-----	88 / 498	

Note 1: ALLOWABLE loads are shown in the **LARGE BOLD** font, Ultimate loads are shown in smaller italic font. **Note 2:** Testing conducted in accordance with ICC AC70 & ASTM E1190. **Note 3:** Safety factors are based on coefficient of variation. In accordance with ICC AC70, the safety factor will be no less than 5. **Note 4:** Values shown in concrete are for the fastener only. Connected members must be investigated separately. **Note 5:** Cyclic, fatigue, shock loads, and other design criteria may require a different safety factor. **Note 6:** Job site testing may be required to determine actual job site values. **Note 7:** Minimum edge distance is 3 inches unless otherwise approved. **Note 8:** For SI: 1 lbf = 4.448 N, 1 inch = 25.4 mm, 1 ksi = 6.89MPa

INSTALLED IN A36 STRUCTURAL STEEL

FASTENER SERIES	SHANK DIA	3/16		1/4		3/8		1/2	
		Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
TE SERIES	0.157	323 / 1739	606 / 3257	562 / 3022	673 / 3621	934 / 5095	820 / 4473	603 / 3286	76 / 4178

INSTALLED IN A572-GR50 STRUCTURAL STEEL

FASTENER SERIES	SHANK DIA	3/16		1/4		3/8		1/2	
		Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear
TE SERIES	0.157	44 / 2400	676 / 3674	630 / 3747	662 / 3942	760 / 4421	725 / 4218	582 / 3118	532 / 2851

- Notes:
- 1) Fasteners tested to ASTM E1190 & ICC-ES AC70 (March 1, 2010) ICC-ES ESR-1799
 - 2) Allowable loads are shown in **BOLD** font. Average ultimate shown in *italic* font
 - 3) Allowable loads and safety factors are based on coefficient of variation in accordance with ICC AC70, the safety factor will be no less than 5 cyclic, fatigue, shock loads, and other design criteria may require a different safety factor
 - 4) Values shown are for the fasteners only; connected members must be investigated separately
 - 5) Values shown are for fastening that have the point end driven through the back side of the steel.