

ACI – ASCC 117 Tolerance Committee Needs Your DATA

ACI-ASCC 117 joint tolerance committee met in Salt Lake City last month to discuss our favorite topic—how realistic are the tolerances? And of course, everyone has an opinion. The unfortunate problem is that there is no rationale presented for the tolerances in the document. The committee wants to change that problem with a two-fold approach: (1) collect data, and (2) publish that data on the ACI website. The committee wants the information and process in choosing tolerances to be transparent so everyone can understand the rationale.

But for this approach to work, the committee needs data. The committee has some data, as shown below, for slab-on-grade thickness. However, the committee needs more data in a number of areas. **Please consider submitting data to me.** I will make sure it is anonymous and then provide a summary for inclusion in the ACI-ASCC 117 Tolerance Database. Here are the areas where the committee needs data:

- Anchor bolt position surveys
- Embed location surveys
- Reinforcement positioning for slabs, beams, walls and columns
- Slab thickness for concrete placed on metal deck and precast
- Location of walls and columns
- Top elevation of walls and columns
- Elevation of slabs-on-grade and suspended slabs

Summary of Slab-on-Grade Thickness Data						
Count	Approximate Area, sf	Number of Samples	Nominal Specified, in	Mean Deviation from Specified, in	Standard Deviation, in	Reference
1	240,000	862	4.00	-0.10	0.60	Gustaferro. "Are Thickness Tolerances for Concrete Floors on Ground Realistic?" Concrete Construction, V. 34, No. 4, April, pp. 389-391.
2	200,000	75	6.00	-0.50	0.47	Gustaferro, 1989 (see above).
3	100,000	186	6.00	-0.55	0.70	Gustaferro, 1989 (see above).
4	100,000	427	6.00	-0.28	0.60	Gustaferro, 1989 (see above).
5	100,000	153	6.00	-0.38	0.57	Gustaferro, 1989 (see above).
6	90,000	79	4.00	-0.36	0.90	Gustaferro, 1989 (see above).
7	100,000	111	4.00	-0.32	0.77	Gustaferro, 1989 (see above).

Thank you!