

SEISMIC TECHNICAL GUIDE: BASIC SEISMIC CODE REQUIREMENTS

ASTM C636, E580
and ASCE7

Seismic Category A & B

- Minimum basic installation requirements based on ASTM C636

Seismic Category C

- Systems average weight of 2.5 PSF or greater must use Heavy Duty main tees
 - Cat D lateral force bracing will be required
- Tee connections to maintain 60 lb. tension and compression
- The use of 9/16" wall mold will require 8" perimeter wires on all tees
- The use of 7/8 wall mold or greater, no perimeter wires are required
- All 4 sides must have 3/8" gap from tee end to wall (standard code)
- ICC ESR 1222 4.1.5.2 – Allows alternate installation for the ceiling to be fixed on 2 sides and floating on 2 sides. Use the ACM7 clip on the 2 floating sides. Allow for a 3/8" gap from the wall to tee end and insert a screw in the slot. Pop rivets, Mac2 clips, and ACM7 can be used on the fixed/tight sides of the ceiling
- Keep tee ends from spreading with spreader/stabilizer bars (standard code)
 - ICC ESR 1222 4.1.5.2 – Allows the use of ACM7 clips replace stabilizer bars
- Wire shall be attached to main tees 4' on center with 3 turns in 3 inches
- Wires shall be installed no more than 1:6 out of plumb

Seismic Category D, E, & F

- Gypsum Ceilings on one plane are exempt from the seismic requirements
- Ceilings less than 144 sf are exempt from seismic requirements
- Heavy Duty main tees are required (ref. ASTM C635)
- All main tees and cross tees must have 180 lb. connection capacity as tested per ASTM E3090
- Wall angle is for aesthetic purposes only and not considered structural
- Wall angle shall be 7/8" or great with the use of the ACM7 clip
- 2 adjacent walls shall have tee ends fixed tight to wall molding with the use of ACM7
 - 2 screws through clip into wall mold and 1 screw into grid through ACM7 clip fixed hole
- 2 adjacent walls shall be floating and have 3/4" gap from tee end to wall.
 - 2 screws through clip into wall mold and 1 screw into grid through ACM7 clip slot
- Tee ends tied together (i.e. perimeter stabilizer bars)
 - ACM7 replaces spreader/stabilizer bars
- 2" wall angle can be used with stabilizer bars and no ACM7 clip
- Perimeter wires required on all tee ends at 8" maximum from the wall
- Wire shall be attached to mains 4' on center to maintain deflection
- Wires shall be installed no more than 1:6 out of plumb
- Lateral Force Bracing (strut and 4 splay wires) shall be installed on ceilings over 1000 sf.
 - LFB is to be installed every 12 ft in in both directions starting 6 ft. from each wall
- Ceilings over 2500 sf. Need expansion joints or bulkhead installed to keep ceilings under 2500 sf.

USG Code Compliance Reports:

USG Ceiling Products have been manufactured and tested to meet the seismic requirements of - IBC, CBC, ASTM, ASCE, HCAi, and DSA.

Code Compliance Reports:

ICC ESR 1222 ACT

ICC ESR 4258 Drywall Suspension

USG OPM-0152-13 Wireless Corridor Solution

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cgcinc.com
usgdesignstudio.com
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SAFETY FIRST!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read applicable SDSs and literature before specification and installation.

AC311584/rev 12-22

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