Seismic Performance


See page 346

PURPOSE OF INSTALLATION REQUIREMENTS FOR SUSPENDED CEILINGS

- Provide a suspension system strong enough to resist lateral forces imposed upon it without failing
- Prevent border panels from falling from the ceiling plane

IBC Requirements for Wall-to-Wall Ceiling Systems with Standard Acoustical Suspension Systems

IBC requirements are based on flat, level suspended ceiling systems – main beams and cross tees suspended from the building structure by wires and wall molding around the perimeter.

- The IBC code is based on the suspension system only
- Many manufacturers market non-standard ceiling systems not covered by the code
- You must be able to prove ceiling systems specified to perform at a level consistent with the intent of the code

Ceiling Designs Using Clouds, Canopies, Blades, and Baffles

Code officials may reject specified products such as clouds or canopies* during plan review, challenging your design and delaying the construction schedule. However, the code “is not intended to prevent” certain ceiling systems, and does allow “alternative materials, designs, and methods” to be used. To substantiate claims for alternative materials and designs, code officials “have the authority to require tests as evidence of compliance.” If you are having problems getting free-floating or non-traditional objects approved, contact your local Armstrong representative. See page 346 for a list of tested systems.

1. Section 104.11 Alternative materials, designs, and methods of construction and equipment.
2. Section 104.11.2 Tests.

*Armstrong defines a cloud as a ceiling that is not connected to a wall on any side. Armstrong defines a canopy as a single, unique architectural element which is independently suspended from the building structure.

ESR-1308 Lists Specific Armstrong Components and Method of Installation

The performance of the Armstrong Seismic Rx Suspension System is based on the specific combination of components and method of installation. Other manufacturers’ components and installation methods were not tested and are not covered in the ESR-1308 evaluation. Substitution of other components puts the system at risk and is not allowed by this ESR report.
Seismic Compliance

Providing a valid Evaluation Service Report to a code official represents the “gold standard” for installations. Armstrong has also tested products that do not appear in ESR reports, as many products do not have clear code requirements. Armstrong can provide you with seismic test results via a white paper or test report based on large-scale seismic shake table test results from an IAS accredited test facility (State University of New York, University at Buffalo).

Contact TechLine at 1 877 ARMSTRONG (276-7876), techline@armstrongceilings.com

When requesting a white paper or test report, please have this information ready to share:
- Project Name
- Location
- Product
- Installing Customer Contact
- Design Professional Contact

**IMPROVE SAFETY**

**REFERENCE – SEISMIC COMPLIANCE**

Armstrong is one of the only ceiling manufacturers consistently providing seismic test results for all types of installations: Wall-to-Wall Ceilings, Canopies, Clouds, Blades, Baffles, and Drywall Grid Systems

### SEISMIC TESTED SYSTEMS

<table>
<thead>
<tr>
<th>Product</th>
<th>Installation Detail</th>
</tr>
</thead>
</table>
| Building Perimeters | Perimeter Pocket with Horizontal Diffuser  
Perimeter Pocket with Vertical Diffuser |
| Canopies | Capz™  
Infusions® Hills  
Infusions Valleys  
Infusions (Grouped)  
MetalWorks™ Canopies  
SoundScapes® Canopies  
MetalWorks Wings  
WoodWorks® Canopies |
| Blades | SoundScapes Blades  
MetalWorks Blades |
| Clouds | 72’ x 72”, 144’ x 144”, and 168’ x 168” Formations™  
12’ Axiom® Floating 2-sides with Prelude® XL® ID  
12’ Axiom Floating Cloud with Prelude XL ID  
6’ Axiom Floating 2-sides with Prelude XL ID  
6’ Axiom Floating Cloud with Prelude XL ID  
Formations Curves  
Serpentina® Classic  
Sepentina Waves™  
SoundScapes Shapes |
| Corridors | Acoustical Locking Angle Mold with 8” Gusset  
Acoustical Locking Angle Mold with 12” Gusset  
Acoustical Locking Angle Mold with Fiberglass Panels  
Acoustical Locking Angle Mold with Mineral Fiber Panels  
Corridor ShortSpan® Corridor System with Gusset |
| Drywall Systems | 6’ DGS Tees  
Drywall Grid System  
QuikStix® Locking Pocket Main  
ShortSpan 14’  
ShortSpan 6’ |
| MetalWorks | 3D  
Concealed  
DH700  
Faced Tegular and Vector®  
Fastrack 3”, 6”, and 12”  
Flush Tegular on Prelude XL  
Linear Curved and Flat Open Cell 4” and 8” Planks  
RH200  
RH200 Cantilevered Curved  
RH215 Curved  
RH215  
Square Tegular on Prelude XL  
Standard Planks  
Tartan™ 3”  
Tartan 6” with Mega Panels  
Tartan 6” with Planks  
Vector on Prelude Suspension System Wings |

<table>
<thead>
<tr>
<th>Product</th>
<th>Installation Detail</th>
</tr>
</thead>
</table>
| Seismic | Category C Installation per Code  
Category D, E & F Installation per Code  
Seismic Corridor with 12” Gusset  
Seismic Corridor with 8” Gusset  
Seismic Joint Clip Main Beam (SJMR15) Fully Loaded  
Seismic Joint Clip Main Beam (SJMR9) Fully Loaded  
Seismic Joint Main Beam Splice  
Seismic Separation Joint on Prelude XL  
Seismic Separation Joint on Suprafine® XL |
| Seismic Rx | BERC2 45-degrees to the Wall on Prelude XL  
BERC2 Fully Loaded on Prelude XL  
BERC2 on 7897 Shadow Molding with Ultima® Vector Panels  
BERC2 on Interlude®  
BERC2 on Interlude with Lights & Sprinklers  
BERC2 on Silhouette® XL with Diffusers & Sprinklers  
BERC2 with Prelude XL Intermediate Duty  
BERC2 with Suprafine XL  
Prule XL - Alternate Category C |
| Standard Suspension System | DC FlexZone™ Fully Loaded  
Metaphors®  
Optima® Radial Ceiling  
Optima Vector  
Optima Vector 24’ x 96” Panels  
Optima Vector 48’ x 48”  
Prelude XL Fire Rated  
Prelude XL Heavy-duty  
Prelude XL to Black Iron (NYC)  
Ultima Shiplap Full Room  
Silhouette XL with Shadow Molding  
Sloped Ceiling  
Suprafine XL Installation per Code  
TechZone™  
Ultima Beveled Tegular  
Ultima Vector |
| WoodWorks | Access  
Concealed  
Linear Curved  
Linear Flat  
Tegular on Prelude XL  
Vector on Prelude XL |
| Direct Attach | Capz |