

# CABINET ENVIRONMENTAL CRITERIA

Your OSP cabinets protect your most important equipment. That's why CommScope tests our cabinets in the harshest conditions. We test for safety and functionality against IEC 62638-1, GR and UL standards **to ensure your cabinets meet the toughest standard of all.**

**Yours.**

## BASELINE TESTING

It confirms the cabinet's environmental and safety performance meet or exceed the Telcordia and UL standards below. Testing beyond the GR/UL standards is also available.

### Telcordia testing includes:

- GR-487-CORE (Generic Requirements for Electronic Equipment Cabinets)
- GR-3108-CORE (Generic Requirements for Network Equipment)
- GR-63-CORE (NEBS Requirements: Physical Protection)
- GR-1089-CORE (EMC and Electrical Safety)

### UL/CSA testing includes:

- UL/CSA-62368-1 (Communication Technology Equipment Safety Requirements)
- UL 50 (Enclosures for Electrical Equipment, Non-Environmental)
- UL 50E (Enclosures for Electrical Equipment, Environmental)
- UL 2416 (Equipment Cabinet, Enclosures and Rack Systems)
- UL 1801 (Investigation of Power Distribution for Communication Equipment)



## BASIC ENVIRONMENTAL TESTING

Environmental testing of cabinets starts in development and continues into production as samples are tested to a defined plan that confirms specifications are met and demonstrates reliable performance.



Typically, these tests includes:

- **Low/high temperature storage**  
at -40°C to 70°C for 72 hours following GR-3108
- **Cold and hot start**  
at -40°C to 65°C following GR-3108
- **Heat exposure**  
at +46°C + solar (or the maximum operating temperature) following GR487 Class 4 requirements.
- **Thermal shock**  
at -40°C to 70°C for 144 hours following GR-487-CORE
- **Acoustics**  
at levels <65 dBA adjustment can be made based on municipality requirements.
- **Salt fog**  
testing for 30 days

Typically, these tests includes:

- **Lifting detail**  
tested to 6X the weight of a fully loaded cabinet
- **Wind resistance (wall and pad mounted)**  
tested up to a Category Five Hurricane
- **Earthquake resistance**  
tested up to Zone 4
- **Wind-driven rain**  
tested to 70mph for any water leakage
- **Transportation vibration/shock**



## STRUCTURAL TESTING

Structural testing ensures the enclosure can meet a wide variety of environmental requirements designed to create a robust system. These requirements begin at the factory and last the life of the enclosure.

## MATERIAL TESTING

Impact testing, Chemical and UV resistance of paint material.

## SAFETY TESTING

As with any system, safety is a priority, with this in mind all cabinets are designed to meet both UL/CSA and Tecordia safety requirements.



Typically, these tests includes:

- **Bonding and grounding**
- **Battery compartment**  
tested for proper ventilation when battery and electronic compartment separation is required
- **UL testing** based on:
  - ✓ Abnormal operating and fault conditions
  - ✓ Input testing
  - ✓ Electrical strength test
  - ✓ Unearthed accessible parts
  - ✓ Creepages and clearances

## Customer specific testing:

Some customers may require additional testing beyond the standard GR and UL requirements. This testing can easily be incorporated into the setup.