Dynamic

Dynamic Temperature Controlled EMMA®, EMMAQUA®, and EMMAQdfUA with Nighttime Wetting

Advantages

- The dynamic system approximates intermittent temperature patterns found in natural exposures on an accelerated test
- The remote temperature sensor may be black panels, end use materials on exposure racks, and even full-scale installations
- Target area temperature sensors can be mounted as standard black panels or even customer specified materials
- The system can incorporate a variety of temperature offsets while maintaining natural environmental temperature patterns
- The system can be used to link multiple EMMA devices in a "chain" or "daisy" configuration for designed experiments or enhanced temperature repeatability
- Can be used in conjunction with standard EMMA or other temperature controlled products

How it works

Remote Sensor

> Controller Temp. Offset

> > (+10 °C)

 A remote temperature sensor establishes the "set point" for the controller

Controller

- The controller compares the temperature on the target exposure area and the remote sensor and adjusts the cooling blower speed until the target sensor temperature equals the remote sensor temperature
- The remote sensor changes with the environmental patterns of the day and these patterns are duplicated on the target area. This is why it is called "dynamic" temperature control.
- A temperature offset can be programmed in the controller so the target temperature can be hotter by a specified amount and still duplicate the temperature pattern of the environment
- The remote sensor can be installed in a static exposure near the EMMA such as a car hood, a roof section or simply a piece of material in a static rack
- The remote sensor can also be mounted on an adjacent EMMA to thermally link EMMA devices

