

## Cramer ESD

### CRAMER CHAIRS CONTROL STATIC ELECTRICITY

Cramer ESD chairs are designed to meet the ESD Association standard test method for the Protection of Electrostatic Discharge Susceptible Items-Seating-Restive Measurement standard ESD STM12.1-1997. This includes testing of the seat, backrest, rear of backrest, armrest (if applicable), footrest (if applicable), and base. NOTE: A conductive outer back is standard only on Triton family models. All other models require an upholstered outer back option to comply with ESD standard STM12.1-1997.

The chair frame, from the back to the base, is electrically conductive to ensure static charges will be dissipated through the upholstery and the chair frame to floor grounds. Conductive casters and glides available in black only. Frame finish is black.

Upholstery is Grade 6 ESD vinyl or 100% nylon fabric material specially woven with conductive fibers and backcoated with a conductive medium. Special conductive materials are installed in contact with the upholstery materials and the chair frame, ensuring immediate dissipation of static charges. Prior to shipment, Cramer tests each ESD chair for conductive quality.

To order a Cramer ESD chair, look for the ESD symbol and order option code "Q".

## Cramer Fire Code

For seating there are two main flammability codes in use in the United States:

- California Technical Bulletin 117 – (TB117)
- California Technical Bulletin 133 – (TB133)

### TB117

All Cramer chairs pass TB117. Components used in seating, such as foam and fabric, are tested individually for flammability characteristics. This is a minimum standard for all furniture offered for sale in California. Cramer is not responsible for Customers Own Material (COM) upholstery fire code compliance.

### TB133

Most Cramer chairs can be manufactured to meet the more stringent TB133. TB133 requires that a fully upholstered seating unit, not just its components, pass a full-scale open flame burn test. TB133 recreates conditions typical of real fires and is by far the most difficult and comprehensive flammability test. It is mandatory for certain public occupancies. Contact your local Fire Marshall for local code requirements.

To pass TB133, Cramer products feature specially formulated foam, flame retardant upholstery and a flame barrier material. Grade 1 through Grade 6 fabric or any vinyl may be ordered. Cramer is not responsible for COM upholstery compliance.

To order TB133 look for the TB133 double flame symbol and order option code "N".

## Cramer Cleanroom

Cramer cleanroom chairs are designed for minimal particulate contribution as certified by tests conducted in accordance with ASTM F25-68 and SAE ARP734A. Air introduced into the test chamber is filtered through 99.99% effective, .5 micron filters. The test chamber is subject to simulated usage by depressing the cushions while a discrete-particle counter records the particulate count. Cramer offers Cleanroom seating products manufactured to meet FED STD 209E (ISO/TC209) in Class 10 (ISO4) and 100 (ISO5):

Class 10: Rhino

Class 100: Triton, Fusion II, RhinoPLUS, Round Stool, Dimension, Centris, Ratio

All exposed metal frame components are chrome plated or powder epoxy coated. To prevent present and future contamination, all footings are sealed with MIG-welds. Seat heights are achieved by sealed, contaminate-free pneumatic cylinders. Cleanroom chairs are available with all standard Cramer vinyls. Seamed covers have flat seams with internal .5 micron nylon reinforcement tape filter double-stitched with multi-filament nylon thread. Seamless covers are equipped with .5 micron membrane filters. Both cover types prevent outgassing or intaking of particulates above the .5 micron size.

Components, such as upholstered seats and backs, are protected from contamination during shipment in sealed plastic bags. Cleanroom chairs are labeled with instructions for unpacking in a cleanroom prep area.

To order a Cramer Cleanroom chair, look for the cleanroom symbol and order option code "P".