Switchboard Matting: Recommended Maintenance

For switchboard insulating floor matting to effectively protect workers from electrical shock, proper maintenance is essential.

Per ASTM D 178, TYPE I switchboard must not be subjected to ozone, oil or aggressive chemicals. It must also not be subject to mechanical damage, such as damage from forklifts, or equipment being moved or dragged over the matting.

Cracks (from ozone exposure), rubber degradation from oil/chemicals, or rips/tears from mechanical damage can compromise the insulating properties of the matting.

Per ASTM D 178; TYPE II switchboard matting must be Fire Retardant or Oil Resistant or Ozone Resistant but does not have to have all three resistance properties. It is essential the user know if the matting in use has one, or more than one resistance property. Certainly, if it is ozone resistant only, it must not be subjected to oil or aggressive chemicals. Mechanical damage will compromise TYPE II matting just as it will TYPE I matting.

BS EN 61111 (IEC 6111) requires switchboard matting to be Flame Retardant, Oil Resistant, Low Temperature Resistant and Acid Resistant per Annex D, Table D.1. Mechanical damage, as well as ambient conditions which exceed test conditions per IEC 61111, will compromise switchboard matting.

IEC 61111 and European Union (EU) Standards recommend switchboard matting be tested visually, and/or per IEC 61111 test methods, each 12 months after being put into service. The size of required dielectric testing equipment, and expense of field testing per IEC 61111, makes testing mats that have been in use for 12 months impractical. Therefore, any suspected damage that may cause the matting to be compromised requires the matting to be disposed of and replaced.

