OSHA & NFPA 70E:

Compliance Questions & Answers

1. **What safeguards must I use when working around energized parts?**

   OSHA 1910.335 (2) (i) Requires each employee shall use insulated tools or handling equipment.

2. **What is a double-insulated hand tool?**

   A two-coat orange over yellow insulation that provides the user with a certification of use to 1000 VAC/1500 VDC.

3. **Why two coats?**

   The two coats allow a user warning. When the yellow shows though the orange surface, OSHA states the tool must be replaced and removed from use.

4. **Must the tools be made and tested to certain standards?**

   Yes, tested to 10000 VAC per ASTM F1505-01 & IEC 900.

5. **Is it true that gloves must be tested and certified prior to use?**

   Yes! OSHA 1910.137(b)(2)(Xi) table I-6: Before 1st issue & every 6 months thereafter.

6. **Is the same true of insulating blankets and sleeves?**

   Almost! Before 1st issue and every 12 months thereafter.

7. **How can I tell a glove has been tested and certified?**

   The cuff of the glove will be marked showing the certification and date.

8. **What is the proof test and max. use voltage for various classes of equipment?**

   Class 00 – 2,500 VAC / 10,000 VD - Maximum use voltage of 500 VAC / 750
   Class 0 – 5,000 VAC / 20,000 VD - Maximum use voltage of 1,000 VAC / 1,500
   Class 1 – 10,000 VAC / 40,000 VD - Maximum use voltage of 7,500 VAC / 11,250
   Class 2 – 20,000 VAC / 50,000 VD - Maximum use voltage of 17,000 VAC / 25,500
   Class 3 – 30,000 VAC / 60,000 VD - Maximum use voltage of 26,500 VAC / 39,750
   Class 4 – 40,000 VAC / 70,000 VD - Maximum use voltage of 36,000 VAC / 54,000

9. How do I know what level of ARC Flash protection I need?

Your must perform a Hazards Job Assessment. The Duke Heat Flux calculator is provided on our web site at www.cementexusa.com.

10. Who offers the broadest line of high quality double-insulated hand tools & PPE?

Cementex Products, Inc. phone 800 654-1292 or tools@cementexusa.com.

11. OSHA 1910.137 requires "that insulating equipment shall be inspected before each day's use and immediately following an incident that can reasonably be suspected of having caused damage." What is a suitable "in-field" equipment test?

a. *Visual inspection of the double-insulated hand tools is a satisfactory means of determining if the yellow insulation is showing through the orange outer layer.*

b. *Insulating gloves shall be given an air test along with a visual inspection.*

12. How do I perform a glove air test?

Use a portable glove inflater kit for "in-field" inspection.

13. What is ATPV?

That is the Arc Thermal Performance Exposure Value or breakopen threshold energy rating of PPE cal/cm2. ATPV is clarified in the ASTM P S58 standard arc test method for flame resistant (FR) fabric as the incident energy that would cause the onset of a second-degree burn.

14. What are the minimum calorie requirements per Hazard Risk Category?

HRC 0:	*N/A cal/cm^2 ATPV; has no apparent hazard*
HRC 1:	*4 cal/cm^2 ATPV; has a range of 0.1 - 4.0 as a hazard*
HRC 2:	*8 cal/cm^2 ATPV; has a range of 4.1 – 8.0 as a hazard*
HRC 3:	*25 cal/cm^2 ATPV; has a range of 8.1 – 25.0 as a hazard*
HRC 4:	*40 cal/cm^2 ATPV; has a range of 25.1 – 40.0 as a hazard*

15. Is the minimum sufficient to provide the protection I need?

The minimum is minimal! Always perform a ARC Hazard Assessment before performing the work. To do the analysis use the Duke Heat Flux Calculator available as a download at www.cementexusa.com.

For more information contact NFPA at 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101 or contact Cementex at …

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