

E12 Electrical Equipment allowed in paint stores and in the enclosed spaces leading to paint stores

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1. Electrical equipment is to be installed in paint stores and in ventilation ducts serving such spaces only when it is essential for operational services.

Certified safe type equipment of the following type is acceptable ;

- a. intrinsically safe Exi
- b. flameproof Exd
- c. pressurised Exp
- d. increased safety Exe
- e. special protection Exs

Cables (through-runs or terminating cables) of armoured type or installed in metallic conduits are to be used.

2. The minimum requirements for the certified safe type equipment are as follows:
 - explosion group II B
 - temperature class T3
3. Switches, protective devices, motor control gear of electrical equipment installed in a paint store are to interrupt all poles or phases and preferably are to be located in non-hazardous space.
4. In the areas on open deck within 1m of inlet and exhaust ventilation openings or within 3 m of exhaust mechanical ventilation outlets, the following electrical equipment may be installed:
 - electrical equipment with the type of protection as permitted in paint stores or
 - equipment of protection class Exn or
 - appliances which do not generate arcs in service and whose surface does not reach unacceptably high temperature or
 - appliances with simplified pressurised enclosures or vapour-proof enclosures (minimum class of protection IP55) whose surface does not reach unacceptably high temperature
 - cables as specified in clause 1.
5. The enclosed spaces giving access to the paint store may be considered as non-hazardous, provided that :
 - the door to the paint store is a gastight door with self-closing devices without holding back arrangements,
 - the paint store is provided with an acceptable, independent, natural ventilation system ventilated from a safe area,
 - warning notices are fitted adjacent to the paint store entrance stating that the store contains flammable liquids.

Note:

The paint stores and inlet and exhaust ventilation ducts under Clause 1 are classified as Zone-1-and areas on open deck under Clause 4 as Zone 2, as defined in IEC standard 60092-502, Electrical Installation in ships-part 502: Tankers-special features.

A watertight door may be considered as being gastight.

