

TEMPORARY EDGE PROTECTION TYPES, CLASSES & TESTING

Types of Edge Protection

Temporary edge protection is used to prevent people and objects from falling to a lower level from sloped or flat working surfaces (such as roof edges, floor edges, stairs and voids). There are two types of edge protection systems:

- **Proprietary** - installed using a number of designed, manufactured, calculated and tested individual components to a given design, following a manufacturers' user instructions. Examples of components are posts, sockets, mesh panels (including a toeboard) and compression posts. Typically, proprietary systems are Temporary Works Category 0.
- **Tubular Guardrail** - these systems use tube and fitting components to create a designed, calculated and tested system. Commonly used components are tubes, couplers, sleeves, puncheons, ladder beams, lattice beams and toeboards. Safety nets may be incorporated if included as part of the design. Typically, tubular guardrail systems are Temporary Works Category 1, but standardised designs may be Category 0.

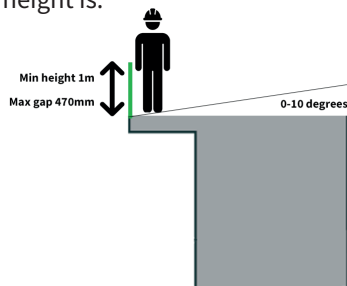
Edge protection is not the same as scaffolding and is covered by a separate European Standard - BS EN 13374. Both proprietary and tubular guardrail systems need to meet the same requirements even though they look very different to each other.

Classes of Edge Protection

Class A

Supports a person leaning on the edge protection and provides them with a handhold.

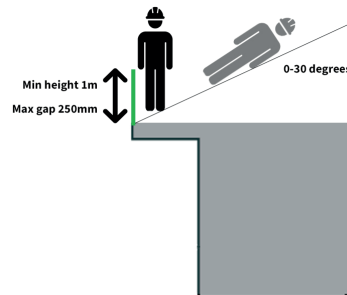
Intended to stop a person walking or falling towards the edge protection on stairs, voids and surfaces up to 10 degrees slope, no matter what the fall height is.



Class B

As Class A **as well as** being intended to stop a person sliding / falling down a sloping surface:

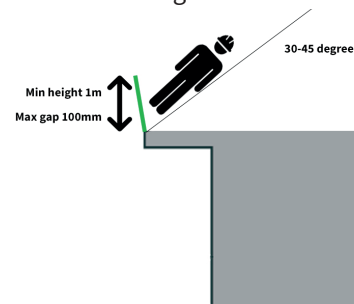
- Less than 30 degrees no matter what the fall height is;
- Less than 60 degrees with a fall height less than 2m.



Class C

Will contain a person sliding / falling down a very steep sloping surface:

- Between 30 and 45 degrees no matter what the fall height is;
- More than 45 and 60 degrees with a fall height less than 5m.



Testing & Test Reports

Class B needs to meet more requirements than Class A, and Class C needs to meet more than Class B or A. Always ensure that the system your being presented with has been tested to the correct Class (A, B or C) as defined by BS EN 13374. To comply with BS EN 13374:

- **Class A** should be calculated for static loads;
- **Class B** should be calculated for static loads and tested for "the swing bag test" (low dynamic load) - 1;
- **Class C** should be tested for "the cylinder test" (high dynamic test).

Every system (proprietary or tubular guardrail) should have test reports detailing calculations and/or testing (as appropriate) that states they comply with the requirements of BS EN 13374.



5 KEY POINTS

1. Edge protection isn't scaffolding - make sure it complies with BS EN 13374
2. Understand the different classes of edge protection
3. Know which tests apply for each class, and ensure the system has been tested accordingly
4. Document testing in the form of test reports
5. Gaps should not exceed the max. permitted in each class

Useful references:

- BS EN 13374: The Standard for Temporary Edge Protection Systems
- epf-uk.org
- faset.org.uk