

FIS SPECIFICATIONS FOR GATE PANEL HOMOLOGATION 2012

Due to safety and functional reasons gate panels as from the season 2012/13, must fulfil the requirements listed below. Flex poles with different diameters of the upright pole are used in FIS races (type A: 29-32 mm; type B: 25-28.9 mm) thus gate panels may be authorised either for one pole type or for both pole types.

1. Normal collision

The panel must not release from the poles during normal gate collision.

Test:

A drop pendulum contacts the inside pole at a height of 70 cm above ground with a momentum of 110 Ns. This corresponds e.g. to the contact of the mass of 10 kg with a velocity of 40 km/h. The panel must not release from the poles during 20 repetitions. The test is conducted for poles of type A and/or B with flex poles as inside and outside poles.

2. Release in case of collision

The panel must release from the pole when athletes collide with the gate. The following tests are conducted for poles of type A and/or B with flex poles as inside and outside poles:

Quasi-static test:

The maximal pull force to release the panel along the poles upwards is determined. The maximal force must not exceed 60 N neither at room temperature nor at -20° C.

Dynamic test:

The pendulum rod of a drop pendulum contacts the panel in the middle between the poles with a momentum of 70 Ns. This corresponds e.g. to the contact of the mass of 30 kg with a velocity of 8 km/h. For 5 repetitions the panel has to be released every time.

3. Geometrical design and colours

The panel must be ca. 0.75 m wide and 0.50 m high. The panel area must be between 0.375 and 0.3 m². Commonly no colours other than red, blue or orange are permitted (see ICR Art. 695).

4. Wind permeability

The panel must be made of wind-permeable material.

5. Documentation

Certified panels must have an imprint or an insert documenting the manufacturer and the year of homologation.

6. Validity

The FIS homologation to produce the panel is valid for 2 years except a new panel specification is introduced. The race organizers can use the panel as long as there is no new panel specification introduced.