
**Snowboards — Binding mounting area —
Part 1:
Requirements and test methods for
snowboards without inserts**

Surfs des neiges — Zone de montage de la fixation —

*Partie 1: Exigences et méthodes d'essai relatives aux surfs des neiges
dépourvus d'inserts*



Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard 10958-1 was prepared by Technical Committee ISO/TC 83, *Sports and recreational equipment*, Subcommittee SC 4, *Skis and snowboards*.

ISO 10958 consists of the following two parts, under the general title

Snowboards — Binding mounting area:

- *Part 1: Requirements and test methods for snowboards without inserts*
- *Part 2: Requirements and test methods for snowboards with inserts*

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Snowboards — Binding mounting area —

Part 1:

Requirements and test methods for snowboards without inserts

1 Scope

This part of ISO 10958 specifies requirements and test methods for binding mounting areas, bindings and retention devices of snowboards without inserts for adults or juveniles, in order to optimize the compatibility of the functional unit "snowboard-binding-boot".

It contains data for the manufacturer of snowboards, bindings and retention devices concerning dimensions, tests and other specifications for the binding mounting area.

This International Standard is applicable to snowboards of the following nominal lengths:

$$l_N \geq 1\,000 \text{ mm.}$$

For dimensions with no tolerance indicated, a tolerance of ± 1 mm is valid.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10958. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10958 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6004:1991, *Alpine skis — Ski binding screws — Requirements.*

ISO 10045:1991, *Alpine skis — Binding mounting area — Requirements for test screws.*

3 Terms and definitions

For the purposes of this part of ISO 10958, the following terms and definitions apply.

3.1

insert

reusable commonly threaded attachment point permanently fixed in the board at the time of manufacture, used to mount the bindings to the board and typically arranged in a pattern corresponding to a particular binding manufacturer's pattern

3.2 leash

cord-like device wherein one end is attached to the top surface of the snowboard or the binding and the other end provides an attachment to one of the rider's legs.

4 Specifications of binding mounting area

4.1 Indication of mounting points

The mounting points shall be located by the snowboard manufacturer with a clearly visible and indelible mark [for example "Haircross" (Fadenkreuz)] on the top surface on the snowboard

- in the centre of the rear binding area, and
- in the centre of the front binding area.

If there are deviations from the specifications laid down in 4.2 and 4.3, they shall be visibly marked on the top surface of the snowboard.

4.2 Length of binding mounting area

The length of the binding mounting area forwards and backwards from each of the mounting points shall be at least 110 mm (in accordance with figure 1).

Dimensions in millimetres

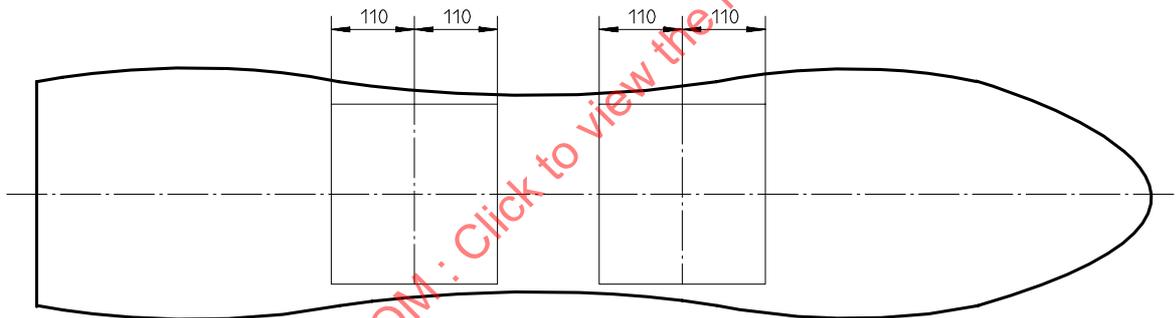


Figure 1 — Binding mounting area

4.3 Width of binding mounting area

The width of the binding mounting area shall reach at least up to 15 mm to the steel edges on both sides of the snowboard.

4.4 Thickness of binding mounting area

Within the total binding mounting area, a drill hole depth of 7,5 mm shall be available so that a penetration depth of the binding screw of $(6 \pm 0,5)$ mm can be reached.

If, because of the board construction, a higher value of penetration depth is needed, this must be clearly indicated on the snowboard.

4.5 Centre-to-centre distance

For screws which are used for mounting of parts of the binding and retention devices, the centre-to-centre distance shall not be less than 20 mm in all directions.

5 Strength requirements of binding mounting area

5.1 Screw retention strength

Within the defined binding mounting areas, the minimum value of the screw retention strength, if the load is applied quasi-statically, shall be as follows:

2 200 N per screw.

Test according to 8.3.

5.2 Stripping resistance of the binding mounting area

The minimum value of the stripping resistance of the snowboard shall be 5 N·m per screw.

5.3 Pull-out resistance

Within the defined binding mounting areas there shall be no pull-out, when tested in accordance with 8.4 with a force of 5 000 N.

6 Specifications of the binding and retention devices

6.1 Geometric specification of binding

The hole-pattern shall be in accordance with the geometrical requirements of 4.2, 4.3 and 4.4.

In order to ensure the required penetration depth, the manufacturer of the binding shall select a suitable length of binding screw, so that after binding mounting the shaft of the screw penetrates the snowboard ($6 \pm 0,5$) mm.

6.2 Binding mounting screws

As mounting elements, ski binding screws in accordance with ISO 6004 shall be used.

6.3 Retention devices

Between the front and rear binding area, the minimum value of the screw retention strength shall be 750 N per screw, so that leashes can be attached in this area.

Test according to 8.3.

7 Apparatus

7.1 Screws, in accordance with ISO 10045.

7.2 T-bar, made of steel with a hole pattern in accordance with figure 2.

8 Procedure

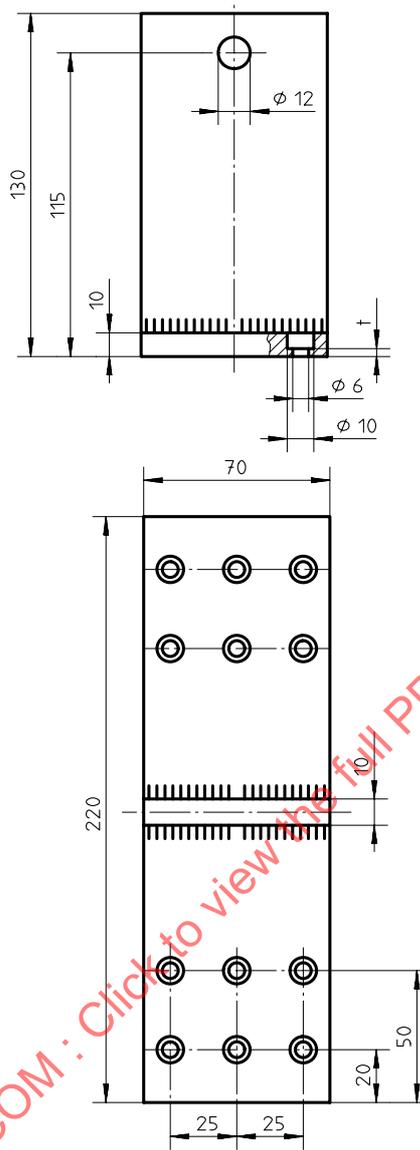
8.1 Sampling and conditioning

Carry out the test on a snowboard at a room temperature of (23 ± 5) °C, without specific preconditioning of the snowboard to be tested.

8.2 General requirements

Test the requirements of 4.1 to 4.5 by measurement and/or visual checking.

Dimensions in millimetres



t according to the penetration depth needed

Figure 2 — T-bar

8.3 Stripping resistance test

8.3.1 Use a test rig with a drill bushing to drill a hole with a diameter of $(4,1 \begin{smallmatrix} +0,12 \\ -0 \end{smallmatrix})$ mm and a depth of $(7,5 \begin{smallmatrix} +0,5 \\ -0 \end{smallmatrix})$ mm.

Where a smaller drill diameter is recommended by the manufacturer, the tests shall follow these recommendations.

8.3.2 Ensure that the screws are mounted perpendicular to the top surface of the snowboard, without pretapping and without lubrication, if not otherwise required by the manufacturer.

Apply an increasing torque with a torque wrench screwdriver for tightening the screw until a tightening moment of $(4 \pm 0,5)$ N·m is reached.

Ensure that the vertical force applied to the screwdriver is less than 500 N.

8.3.3 Using an appropriate testing device, a vertical force as defined in 5.1 is applied quasi-statically.

8.3.4 The test shall be repeated at five different locations within the binding mounting area.

At each pass the requirements shall be met.

8.4 Pull-out test

8.4.1 Mounting of the T-bar

It is recommended that a drill jig be used to ensure exact drill holes, perpendicular to the top surface of the snowboard, and at an exact distance apart. The hole pattern of the drill holes shall comply to the hole pattern of the T-bar (see 7.2).

Ensure that the dimensions of the drill holes for testing snowboard are as follows:

- drill hole diameter: $(4,1 \begin{smallmatrix} +0,12 \\ -0 \end{smallmatrix})$ mm
- drill hole depth: $(7,0 \begin{smallmatrix} +0,5 \\ -0 \end{smallmatrix})$ mm

Where a smaller drill diameter is recommended by the manufacturer, the tests shall follow these recommendations.

The T-bar shall be screwed to the board perpendicular to the longitudinal axis with 12 screws.

Ensure that the screws are mounted perpendicular to the top surface of the snowboard, without pretapping and without lubrication, if not otherwise required by the manufacturer.

Tightening torque: $(4 \pm 0,5)$ N·m.

The location of the pull-out tests within the binding mounting area is free of choice.

Ensure that the tests are not influenced by the preceding tests. If the top skin is delaminated during a retention test, continue the test on another snowboard.

8.4.2 Clamping of the board

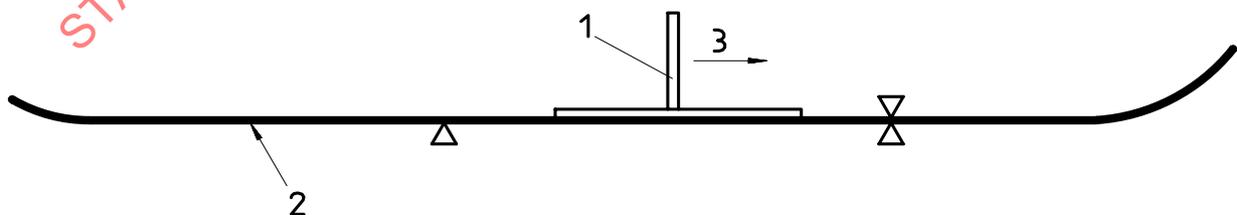
The board is clamped by the supports (one of them fixed), whereby the supports are located 150 mm apart from the outer line of the binding mounting area (in accordance with figure 3).

8.4.3 Load application

Ensure that the loading rate is quasi-static, not more than 20 mm/min and in the horizontal direction (as shown in figure 3).

Measure the maximum load which is applied during the load application.

Measuring accuracy: ± 50 N.



Key

- 1) T-bar
- 2) Snowboard
- 3) Direction of load application

Figure 3 — Load application

9 Test report

The test report shall include the following information:

- a) a reference to this part of ISO 10958;
- b) snowboard manufacturer, model designation, year of manufacturer and serial number;
- c) compliance with the requirements according to clause 5;
- d) test results according to clause 8;
- e) any deviation from this part of ISO 10958 and the reasons for this deviation;
- f) date of tests.

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