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Light conveyor belts — Determination of the electrostatic field generated by a running light conveyor belt

Courroies transporteuses légères — Détermination du champ électrostatique engendré par une courroie transporteuse légère en marche

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 21179 was prepared by Technical Committee ISO/TC 41, *Pulleys and belts (including veebelts)*, Subcommittee SC 3, *Conveyor belts*.

This International Standard is based on EN 1718:1999, prepared by CEN/TC 188.

Light conveyor belts — Determination of the electrostatic field generated by a running light conveyor belt

1 Scope

This International Standard specifies a test method for the determination of the electrostatic field generated by a running light conveyor belt according to ISO 21183-1.

This dynamic procedure is required because the antistatic behaviour of light conveyor belts cannot in many cases be sufficiently described by measurement of the electrical resistances in accordance with ISO 21178.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 22, *Belt drives — Flat transmission belts and corresponding pulleys — Dimensions and tolerances*

ISO 4287, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*

ISO 18573:2003, *Conveyor belts — Test atmospheres and conditioning periods*

ISO 21178, *Light conveyor belts — Determination of electrical resistances*

ISO 21181, *Light conveyor belts — Determination of the relaxed elastic modulus*

ISO 21183-1, *Light conveyor belts — Part 1: Principal characteristics and applications*

3 Principle

The test piece is run under specified conditions and produces an electrostatic field, the variation of which with time is recorded.

The test is carried out successively with both sides of the belt in contact with the pulleys.

4 Apparatus (see Figure 1)

4.1 Pair of pulleys, as follows:

a) electrically connected and earthed;

b) made of steel;

c) diameter 200 mm or larger, rim width 120 mm;