### INTERNATIONAL STANDARD

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# Polyolefin pipes for the conveyance of fluids — Determination of resistance to crack propagation — Test method for slow crack growth on notched pipes

Tubes en polyoléfines pour le transport des fluides — Détermination de la résistance à la propagation de la fissure — Méthode d'essai de la propagation lente de la fissure d'un tube entaillé (essai d'entaille)



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### **Foreword**

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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 13479 was prepared by Technical Committee ISO/TC 138, Plastics pipes, fittings and valves for the transport of fluids, Subcommittee SC 5, General properties of pipes, fittings and valves of plastic materials and their accessories — Test methods and basis specifications.

This second edition cancels and replaces the first edition (ISO 13479:1997), which has been technically revised.

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## Polyolefin pipes for the conveyance of fluids — Determination of resistance to crack propagation — Test method for slow crack growth on notched pipes

### 1 Scope

This International Standard specifies a test method for determining the resistance to slow crack growth of polyolefin pipes, expressed in terms of time to failure in a hydrostatic pressure test on a pipe with machined longitudinal notches in the outside surface. The test is applicable to pipes of wall thickness greater than 5 mm.

### 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 161-1, Thermoplastics pipes for the conjeyance of fluids — Nominal outside diameters and nominal pressures — Part 1: Metric series

ISO 1167-1, Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 1: General method

ISO 1167-2, Thermoplastics pipes, fittings and assembles for the conveyance of fluids — Determination of the resistance to internal pressure — Part 2: Preparation pipe test pieces

ISO 3126, Plastics piping systems — Plastics components — etermination of dimensions

ISO 6108, Double equal angle cutters with plain bore and key deal

ISO 11922-1, Thermoplastics pipes for the conveyance of fluids Dimensions and tolerances — Part 1: Metric series

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 161-1 and ISO 11922-1 apply.

### 4 Principle

Lengths of pipe with four machined longitudinal external notches are subject to a hydrostatic pressure test whilst immersed in a water tank at 80 °C in accordance with ISO 1167-1 and ISO 1167-2. The time to failure or test period is recorded.

NOTE It is assumed that the following test parameters are set by the standard or specification making reference to this International Standard:

- a) the number of test pieces, if applicable (see 6.5);
- b) the test pressure (see 8.1);
- c) the test period (see 8.1).