

# INTERNATIONAL STANDARD

# ISO 13955

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## Plastics pipes and fittings — Crushing decohesion test for polyethylene (PE) electrofusion assemblies

*Tubes et raccords en matières plastiques — Essai de décohésion par  
écrasement des assemblages électrosoudables en polyéthylène (PE)*

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Reference number  
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**ISO 13955:1997(E)****Foreword**

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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 ISO 13955 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 basic specifications*.

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# Plastics pipes and fittings — Crushing decohesion test for polyethylene (PE) electrofusion assemblies

## 1 Scope

This International Standard describes a crushing test method for determining the decohesive resistance of polyethylene (PE) pipe and electrofusion socket or saddle assemblies for use in the distribution of fluids. The method is applicable to assemblies with pipes of nominal outside diameter between 16 mm and 225 mm.

## 2 Normative reference

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

ISO 11413:1996, *Plastics pipes and fittings — Preparation of test piece assemblies between a polyethylene (PE) pipe and an electrofusion fitting.*

## 3 Principle

The purpose of the test is to assess the cohesion of a PE pipe/electrofusion socket or saddle assembly by crushing a test piece. The test is conducted at  $23\text{ °C} \pm 2\text{ °C}$ .

The decohesive strength of the assembly is characterized by the nature of the failure in the plane of the fused material and by the percentage decohesion. The appearance and location of the failure is taken into account in assessing the strength of the assembly.

## 4 Apparatus

The apparatus shall include the following main elements:

**4.1 Compression-testing machine**, capable of a constant compression speed of  $100\text{ mm/min} \pm 10\%$ .

**4.2 Lever**, e.g. a screwdriver.

**4.3 Stops**, to limit the minimum separation of the platens of the compression-testing machine to twice the thickness of the pipe wall.