
**Plastics piping systems —
Thermoplastics pipes and fittings for hot
and cold water — Test method for the
resistance of mounted assemblies to
temperature cycling**

Systèmes de canalisations en plastique — Tubes thermoplastiques et raccords pour eau chaude et froide — Méthode d'essai de la résistance des assemblages à des cycles de température



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Foreword

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Plastics piping systems — Thermoplastics pipes and fittings for hot and cold water — Test method for the resistance of mounted assemblies to temperature cycling

1 Scope

This International Standard specifies a method for testing the resistance to temperature cycling of joints for piping systems with rigid or flexible thermoplastics pipes.

It is applicable to thermoplastics piping systems intended to be used in hot and cold water pressure applications.

2 Principle

A test assembly of pipes and fittings (see Figure 1) is subjected to temperature cycling by the passage of water under pressure using hot and cold water alternately, for a specified number of cycles.

While being subjected to temperature cycling, parts of the assembly of pipes and fittings are maintained under tensile stress and/or flexural strain using static clamps.

During and after the test, the assembly is monitored for signs of leakage.

NOTE It is assumed that the following test parameters are set by the reference product standard (i.e. the standard making reference to this International Standard):

- a) the test temperatures (see 3.1, 3.2 and 6.1);
- b) the duration of a complete cycle and each part of the cycle (see 3.1, 3.2 and 6.1);
- c) the test pressure (see 3.6 and 6.1);
- d) the tensile stress (see 3.8 and 5.3);
- e) the bending radius (see Clause 4 and Figures 1 and 2);
- f) the total number of cycles, including the first five cycles (see 6.2 and 6.3).