

NOTCH PIPE TEST ACCORDING TO ISO 13479

Evaluation of the resistance to slow crack growth

APPROACH

ISO 13479 specifies a method to determine the resistance to slow crack growth of polyolefin pipes.

The test consists of a hydrostatic pressure test on a pipe with machined longitudinal notches on the outside surface and the result is expressed in terms of time to failure. The test is applicable to pipes of a wall thickness greater than 5 mm.

TEST PROCEDURE

The test procedure is described in ISO 13479. Four notches are introduced on a minimum of three pipes. The notched pipes are then subjected to hydrostatic pressure testing in tap water. When the pipes have failed or have been terminated the remaining ligament thickness is checked.

SYSTEM STANDARDS

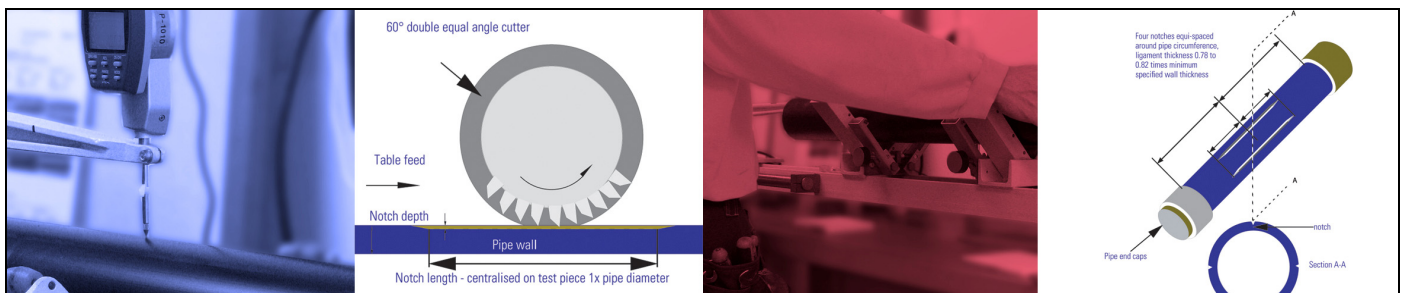
The system standards below specify the test conditions and requirement for each material.

- ISO 4427 Plastic piping systems – Polyethylene (PE) pipes and fittings for water supply
- ISO 4437 Buried polyethylene (PE) pipes for the supply of gaseous fuels
- ISO 14531 Cross linked polyethylene (PEX) pipe systems for the conveyance of gaseous fuels

TEST CONDITIONS AND REQUIREMENTS

The test conditions for different PE and PEX materials are shown in table below. All testing is performed using tap water at 80°C as test media. The pressures in the table are based on SDR 11 pipes.

Material	PE 80 / PE 100	PEX 80 / PEX 100 / PEX 125
Pressure	8.0 bar	8.0 / 9.2 / 10.8 bar
Failure	>500 h	>5 000 h



CONTACT

Phone +46 155 22 14 76
Fax +46 155 26 31 25
Email info@bodycotepolymer.com
Web www.bodycotepolymer.com
 www.bodycote.com

