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Ductile iron pipes - Push-in joints for ductile iron pipe systems - Resistance against root penetration - Requirements and test methods

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

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EUROPEAN STANDARD
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EN 17970

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English Version

**Ductile iron pipes - Push-in joints for ductile iron pipe
systems - Resistance against root penetration -
Requirements and test methods**

Tuyaux en fonte ductile - Assemblages automatiques
pour systèmes de canalisation en fonte ductile -
Résistance à la pénétration des racines - Exigences et
méthodes d'essai

Rohre aus duktilem Gusseisen - Steckmuffen-
Verbindungen für Rohrsysteme aus duktilem
Gusseisen - Widerstandsfähigkeit gegen
Wurzeleinwuchs - Anforderungen und Prüfverfahren

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN 17970:2024 (E)

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European foreword

This document (EN 17970:2024) has been prepared by Technical Committee CEN/TC 203 “Cast iron pipes, fittings and their joints”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2024, and conflicting national standards shall be withdrawn at the latest by December 2024.

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Introduction

The test described in this document is adjusted from a standardized test method for plastic pipes to the characteristics of push-in joints for ductile iron pipe systems.

The undesired penetration of tree roots into push-in joints

- causes obstacles to flow with the resulting risks of blockages and backing-up;
- causes leakage in sewage systems with the hazards to the soil and groundwater which this entails;
- leads to high, recurring costs for root removal;
- needs the replacement or renovation of the affected section of sewage or drainage system.

In this case, even after replacement or renovation, the cause often remains in effect – namely the close proximity of the tree with the route of the drainage and sewage system. Therefore, root-resistant pipe systems should be used when laying new drainage and sewage systems and replacing existing ones.

1 Scope

This document is applicable to diffusion-tight pipes, accessories and fittings in ductile cast iron to EN 598 and to cast iron pipe systems.

The document gives requirements on the contact pressure based on a risk assessment and gives a test method that simulates the penetration of a root tip into the sealing gap.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 598:2007+A1:2009, *Ductile iron pipes, fittings, accessories and their joints for sewerage applications — Requirements and test methods*

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