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Irish Standard  
I.S. EN ISO 22282-6:2012

# Geotechnical investigation and testing - Geohydraulic testing - Part 6: Water permeability tests in a borehole using closed systems (ISO 22282-6:2012)

## I.S. EN ISO 22282-6:2012

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**Geotechnical investigation and testing - Geohydraulic testing -  
Part 6: Water permeability tests in a borehole using closed  
systems (ISO 22282-6:2012)**

Reconnaissance et essais géotechniques - Essais  
géohydrauliques - Partie 6: Essais de perméabilité à l'eau  
dans un forage en tube fermé (ISO 22282-6:2012)

Geotechnische Erkundung und Untersuchung -  
Geohydraulische Versuche - Teil 6:  
Wasserdurchlässigkeitsversuche im Bohrloch unter  
Anwendung geschlossener Systeme (ISO 22282-6:2012)

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## **Foreword**

This document (EN ISO 22282-6:2012) has been prepared by Technical Committee CEN/TC 341 "Geotechnical Investigation and Testing", the secretariat of which is held by ELOT, in collaboration with Technical Committee ISO/TC 182 "Geotechnics".

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of an identical text or by endorsement, at the latest by December 2012, and conflicting national standards shall be withdrawn at the latest by December 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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**Geotechnical investigation and testing —  
Geohydraulic testing —**

**Part 6:**

**Water permeability tests in a borehole  
using closed systems**

*Reconnaissance et essais géotechniques — Essais géohydrauliques —  
Partie 6: Essais de perméabilité à l'eau dans un forage en tube fermé*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The main task of technical committees is to prepare International Standards. 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.

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ISO 22282-6 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 341, *Geotechnical investigation and testing*, in collaboration with Technical Committee ISO/TC 182, *Geotechnics*, Subcommittee SC 1, *Geotechnical investigation and testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 22282 consists of the following parts, under the general title *Geotechnical investigation and testing* — *Geohydraulic testing*:

- *Part 1: General rules*
- *Part 2: Water permeability tests in a borehole using open systems*
- *Part 3: Water pressure tests in rock*
- *Part 4: Pumping tests*
- *Part 5: Infiltrometer tests*
- *Part 6: Water permeability tests in a borehole using closed systems*

**I.S. EN ISO 22282-6:2012**

# Geotechnical investigation and testing — Geohydraulic testing —

## Part 6:

## Water permeability tests in a borehole using closed systems

### 1 Scope

This part of ISO 22282 specifies requirements for the determination of the local permeability in soils and rocks below or above the groundwater table in a closed system by the water permeability tests as part of the geotechnical investigation services according to EN 1997-1 and EN 1997-2.

The tests are used to determine the permeability coefficient  $k$  in low permeability soil and rock lower than  $10^{-8}$  m/s. It can also be used to determine the transmissivity  $T$  and the storage coefficient  $S$ .

NOTE The water pressure test in rock is covered by ISO 22282-3.

### 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 14688-1, *Geotechnical investigation and testing — Identification and classification of soil — Part 1: Identification and description*

ISO 14689-1, *Geotechnical investigation and testing — Identification and classification of rock — Part 1: Identification and description*

ISO 22282-1, *Geotechnical investigation and testing — Geohydraulic tests — Part 1: General rules*

ISO 22475-1, *Geotechnical investigation and testing — Sampling method and groundwater measurements — Part 1: Technical principles for execution*

### 3 Terms, definitions and symbols

#### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 22282-1 apply.

#### 3.2 Symbols

For the purposes of this document, the symbols given in Table 1 apply.

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