



**SLOVENSKI STANDARD**  
**SIST EN 15257:2007**

**01-februar-2007**

---

Učebni učbeniki in učbeniki za katodni zaščitni osebje

Cathodic protection - Competence levels and certification of cathodic protection personnel

Kathodischer Korrosionsschutz - Qualifikationsgrade und Zertifizierung von für den kathodischen Korrosionsschutz geschultem Personal

Protection cathodique - Niveaux de compétence et certification du personnel en protection cathodique

[SIST EN 15257:2007](#)

[https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-](https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5743/sist-en-15257-2007)

Ta slovenski standard je istoveten z: **EN 15257:2006**

---

**ICS:**

25.220.40      Kovinske prevleke      Metallic coatings

**SIST EN 15257:2007**      en

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 15257:2007

<https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5743/sist-en-15257-2007>

ICS 77.060

English Version

## Cathodic protection - Competence levels and certification of cathodic protection personnel

Protection cathodique - Niveaux de compétence et certification du personnel en protection cathodique

Kathodischer Korrosionsschutz - Qualifikationsgrade und Zertifizierung von für den kathodischen Korrosionsschutz geschultem Personal

This European Standard was approved by CEN on 28 October 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN 15257:2007](https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5743/sist-en-15257-2007)

<https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5743/sist-en-15257-2007>



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

**Contents**

Page

Foreword.....	4
<b>1</b> <b>Scope .....</b>	<b>5</b>
<b>2</b> <b>Normative references .....</b>	<b>5</b>
<b>3</b> <b>Terms and definitions .....</b>	<b>6</b>
<b>4</b> <b>General principles, duties and responsibilities.....</b>	<b>7</b>
4.1 <b>Certification body .....</b>	<b>7</b>
4.2 <b>Delegated body .....</b>	<b>8</b>
4.3 <b>Training centre.....</b>	<b>8</b>
4.4 <b>Examination centre.....</b>	<b>8</b>
<b>5</b> <b>Levels of competence .....</b>	<b>9</b>
5.1 <b>General.....</b>	<b>9</b>
5.2 <b>Level 1.....</b>	<b>9</b>
5.3 <b>Level 2.....</b>	<b>9</b>
5.4 <b>Level 3.....</b>	<b>10</b>
<b>6</b> <b>Eligibility for certification.....</b>	<b>11</b>
6.1 <b>General.....</b>	<b>11</b>
6.2 <b>Training.....</b>	<b>11</b>
6.2.1 <b>General.....</b>	<b>11</b>
6.2.2 <b>Level 1 and level 2 .....</b>	<b>11</b>
6.2.3 <b>Level 3.....</b>	<b>11</b>
6.3 <b>Industrial experience.....</b>	<b>12</b>
<b>7</b> <b>Competence assessment for certification.....</b>	<b>12</b>
7.1 <b>General.....</b>	<b>12</b>
7.2 <b>Examination for level 1 and level 2 .....</b>	<b>12</b>
7.2.1 <b>General.....</b>	<b>12</b>
7.2.2 <b>Common-core examination session.....</b>	<b>13</b>
7.2.3 <b>Sectoral theoretical examination session.....</b>	<b>13</b>
7.2.4 <b>Sectoral practical examination session .....</b>	<b>13</b>
7.2.5 <b>Conduct of examinations.....</b>	<b>13</b>
7.2.6 <b>Grading of the Level 1 and Level 2 certification examination.....</b>	<b>14</b>
7.2.7 <b>Final assessment.....</b>	<b>14</b>
7.3 <b>Assessment for level 3.....</b>	<b>14</b>
7.4 <b>Re-assessment.....</b>	<b>15</b>
7.5 <b>Competence assessment exemptions.....</b>	<b>15</b>
<b>8</b> <b>Administration of certification.....</b>	<b>15</b>
8.1 <b>Certificates and/or wallet cards.....</b>	<b>15</b>
8.2 <b>Provisional certification .....</b>	<b>15</b>
8.3 <b>Validity period of certificate.....</b>	<b>16</b>
<b>9</b> <b>Re-certification.....</b>	<b>16</b>
9.1 <b>General.....</b>	<b>16</b>
9.2 <b>Levels 1 and 2 .....</b>	<b>16</b>
9.3 <b>Level 3.....</b>	<b>16</b>
<b>10</b> <b>Files .....</b>	<b>16</b>
<b>11</b> <b>Establishment of new certification schemes, extension of schemes, transition periods .....</b>	<b>17</b>
11.1 <b>General.....</b>	<b>17</b>
11.2 <b>Certification body .....</b>	<b>17</b>

iTech STANDARD PREVIEW  
(standards.iteh.ai)

SIST EN 15257:2007  
<https://standards.iteh.ai/catalog/standards/sist/cc7570d6-1b68-42a3-b8b4-6247515743/sist-en-15257-2007>

11.3	Certification scheme and training .....	17
11.3.1	General .....	17
11.3.2	Appointment of trustees .....	17
11.3.3	Establishment of certification scheme.....	17
11.3.4	Liaisons with existing schemes.....	17
11.4	Transition period for examiners and assessment committee .....	17
11.5	Transition period for previously certificated personnel.....	18
11.6	National boundaries .....	18
Annex A	Application sectors (normative).....	19
A.1	General .....	19
A.2	Underground and immersed metallic structures .....	19
A.3	Marine metallic structures .....	19
A.4	Reinforced concrete structures .....	20
A.5	Inner surfaces of metallic container structures .....	20
Annex B	Competence levels (normative).....	21
B.1	General .....	21
B.1.1	Introduction.....	21
B.1.2	Level 1.....	21
B.1.3	Level 2.....	21
B.1.4	Level 3.....	21
B.1.5	Tasks to be fulfilled in all application sectors.....	22
B.2	Specific tasks for underground and immersed metallic structures application sector .....	22
B.3	Specific tasks for marine metallic structures application sector.....	24
B.4	Specific tasks for reinforced concrete structures application sector .....	25
B.5	Specific tasks for inner surfaces of metallic structures application sector .....	27

(standards.iteh.ai)

SIST EN 15257:2007

<https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5743/sist-en-15257-2007>

## Foreword

This document (EN 15257:2006) has been prepared by Technical Committee CEN/TC 219 “Cathodic protection”, the secretariat of which is held by BSI.

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 June 2007, and conflicting national standards shall be withdrawn at the latest by June 2007.

This document is aimed at enabling the competence of personnel carrying out cathodic protection studies, execution work, inspections and maintenance work to be defined and verified. The relevant application sectors concern underground or immersed metallic structures, marine metallic structures, reinforced concrete structures and the inner surfaces of metallic container structures.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 15257:2007](https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5743/sist-en-15257-2007)

<https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5743/sist-en-15257-2007>

## 1 Scope

This European Standard defines three competence levels (Annex B) of personnel acting in the field of cathodic protection, including survey, design, installation, testing and maintenance. It specifies a framework of procedures for the training and certification for the personnel to reach and demonstrate the competence levels. It defines the minimum requirements for certification bodies responsible for this certification.

The procedures for certification of cathodic protection personnel should be in accordance with EN ISO/IEC 17024.

Competence levels and certification schemes apply to each of the following application sectors:

- underground and immersed metallic structures;
- marine metallic structures;
- reinforced concrete structures;
- inner surfaces of metallic container structures.

These application sectors are detailed in Annex A.

It is not mandatory for a certification body to establish certification in all application sectors or to all levels of competence.

A certification body may subdivide application sectors and may combine levels of competence. If such subdivision and/or combination are used by the certification body, it should ensure that the certificates discriminate these divided sectors or combined levels from those defined in this standard.

NOTE 1 This European Standard does not incorporate the certification of companies or services.

NOTE 2 This European Standard does not include internal corporate assessment and qualification of personnel.

NOTE 3 Wherever gender specific words such as "his", "her", "he" or "she" appears in this standard the other gender is also applicable.

## 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.

EN 12473, *General principles of cathodic protection in sea water*

EN 12474, *Cathodic protection for submarine pipelines*

EN 12495, *Cathodic protection for fixed steel offshore structures*

EN 12499, *Internal cathodic protection of metallic structures*

EN 12696, *Cathodic protection of steel in concrete*

EN 12954, *Cathodic protection of buried or immersed metallic structures - General principles and application for pipelines*

EN 13173, *Cathodic protection for steel offshore floating structures*

EN 13174, *Cathodic protection for harbour installations*

EN 13509, *Cathodic protection measurement techniques*

EN 13636, *Cathodic protection of buried metallic tanks and related piping*

EN 14505, *Cathodic protection of complex structures*

## EN 15257:2006 (E)

EN 15112, *External cathodic protection of well casings*

EN 50162, *Protection against corrosion by stray current from direct current systems*

EN ISO/IEC 17024, *Conformity assessment - General requirements for bodies operating certification for persons (ISO/IEC 17024:2003)*

EN ISO 8044:1999, *Corrosion of metals and alloys - Basic terms and definitions (ISO 8044:1999)*

CEN/TS 14038-1, *Electrochemical realkalization and chloride extraction treatments for reinforced concrete - Part 1: Realkalization*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 8044:1999 and the following apply.

**3.1 application sector**  
particular section of industry or technology where specialised cathodic protection design, testing and maintenance practices are used requiring specific system related knowledge, skill, equipment or training

NOTE Application sectors are detailed in Annex A.

**3.2 candidate**  
person applying for certification for a given level in a given application sector

**3.3 cathodic protection personnel**  
personnel who devote a regular and significant percentage of their professional activity to the practical application of cathodic protection within one or more of the application sectors

**3.4 certificate**  
document issued under the rules of the certification system defined in this standard indicating that the named person has demonstrated that he is competent to perform the tasks defined in this standard for the given level and application sector identified on the certificate

**3.5 certification assessment**  
assessment of competence by examination or general assessment (for level 3 only)

**3.6 certification body**  
body that administers procedures for certification of cathodic personnel according to the requirements of this standard and which fulfils the requirements of EN ISO/IEC 17024

**3.7 certification examination**  
procedure that is part of the certification assessment, which measures a candidate's competence by one or more means such as written, oral, practical and observational examination

**3.8 competence**  
ability of personnel to undertake tasks at specific levels and in specific cathodic protection application sectors in accordance with existing European Standards on cathodic protection. This is demonstrated by appropriate levels of training, professional knowledge, skill and experience



**3.9****delegated body**

body, independent of any single predominant interest, subcontracted by the certification body to perform any of its tasks, except the issue of certification, in compliance with EN ISO/IEC 17024

NOTE The delegated body constitutes one of the elements of the system governed by the certification body.

**3.10****examination centre**

centre approved by the certification body for the examination of competence in cathodic protection. The centre includes testing facilities to simulate the electrical conditions which normally exist in real cathodic protection of operating industrial structures, for a given application sector

NOTE The examination centre constitutes one of the elements of the system governed by the certification body.

**3.11****examiner**

person with relevant technical and personal qualifications, and competent to conduct and/or score an examination under the authorisation of the certification body or the delegated body

**3.12****industrial cathodic protection experience**

experience in the applicable cathodic protection techniques and field of application concerned, which leads to the required skill and knowledge

**3.13****provisional certification**

document from the certification body or delegated body confirming successful completion of examination

**3.14****significant interruption**

absence from, or change in activity, which prevents the certificated person from practising the duties corresponding to his level of certification within the application sector(s) for which he is certificated, for:

- <https://standards.iteh.ai/catalog/standards/sist/ec7370d6-fbb8-42a3-b8b4-5154378e5745/sist-en-15257-2007>
- a continuous period in excess of 365 days or;
  - two or more periods for a total time exceeding two fifths of the total period of validity of the certificate

**3.15****technical instruction, method statement or work instruction**

written description stating the precise steps to be followed in a cathodic protection design, testing or maintenance activity to an established standard, code, specification or cathodic protection procedure

**3.16****training**

theoretical and practical instructions given in conformity to a pre-established programme in order to furnish or increase the knowledge and the ability of the personnel in cathodic protection activities

**3.17****training centre**

centre where training of candidates is carried out for preparation to certification examination. The training centre includes demonstration and testing facilities to simulate the electrical conditions which normally exist in real cathodic protection of operating industrial structures, for a given application sector

**4 General principles, duties and responsibilities****4.1 Certification body**

The certification body shall fulfil the requirements of EN ISO/IEC 17024 and this standard in respect of the certification of cathodic protection personnel.

The certification body shall:

- initiate, promote, maintain and administer the certification scheme according to this standard;

- b) determine which competence levels and application sectors shall be the subject of certification;
- c) establish and publish the requirements for training and industrial experience for levels 1, 2 and 3 personnel in the application sectors detailed in Annex A for the levels and sectors selected for certification;
- d) assess and approve examination centres;
- e) monitor and document all delegated functions, in accordance with a documented procedure.

The certification body may delegate, under its direct responsibility, to a delegated body:

- i) the detailed administration of the certification procedure;
- ii) the approval of properly staffed and equipped training centres and their monitoring on a periodic basis if a training centre is part of the certification procedure;
- iii) the establishment of properly staffed and equipped examination centres and their monitoring on a periodic basis;
- iv) the establishment of an appropriate system for the maintenance of training, competence and examination records, which shall be retained for at least one certification cycle (see Clause 9).

#### **4.2 Delegated body**

Where established, the delegated body shall:

- a) work under the control of the certification body;
- b) have the resources and expertise needed to undertake all the tasks delegated by the certification body;
- c) apply a documented quality management system approved by the certification body in accordance with EN ISO/IEC 17024.

#### **4.3 Training centre**

The establishment of a training centre is not mandatory. A training centre may be situated at an employer's premises or at an examination centre or independently. A training centre may be used as an examination centre, provided that it satisfies the minimum characteristics listed in 4.4.

- 1) A training centre may be established for one or more application sectors.
- 2) A training centre shall provide the following components, any of which may be combined:
  - a) demonstration and testing facilities to simulate the electrical conditions which normally exist in real cathodic protection of operating industrial structures, for the appropriate application sector(s);
  - b) a classroom having appropriate equipment and facilities for teaching the theoretical principles;
  - c) a workshop with appropriate equipment, facilities and equipped with cathodic protection instruments, materials and samples for practical training and testing.

Up to date calibration certificates and repair records for all devices, instrumentation and equipment shall be maintained by the training centre.

#### **4.4 Examination centre**

An examination centre shall:

- a) have adequately qualified staff, suitable premises and sufficient equipment to ensure successful examinations for the levels and application sectors concerned;
- b) work under the control of the certification body or delegated body;
- c) apply a documented quality management procedure approved by the certification body;
- d) have the resources needed to administer examinations, including the calibration and control of any equipment used;
- e) prepare and conduct examinations under the responsibility of an examiner(s) authorised by the certification body;

- f) use only those examination documents established or approved by the certification body;
- g) use only test facilities prepared or approved by the certification body for the practical examinations conducted at that centre;
- h) use only those assessment procedures established or approved by the certification body;
- i) include testing facilities to simulate the electrical conditions which normally exist in real cathodic protection of operating industrial structures, for a given application sector.

An examination centre may be situated at a training centre or at an employer's premises. Examinations and their assessments shall be conducted only in the presence of, and under the control of an authorised representative of the certification body or delegated body, which shall be independent of the employer of the candidate.

## 5 Levels of competence

### 5.1 General

An individual who has been certificated in accordance with this standard shall be classified in one or more of the three following levels, depending upon his respective competence in particular application sectors.

A detailed description of competence levels is given in Annex B.

### 5.2 Level 1

An individual certificated to level 1 shall have demonstrated outline knowledge of:

- a) the fundamentals of electricity, corrosion and coatings;
- b) cathodic protection and measurement techniques;
- c) safety issues and applicable standards related to cathodic protection.

He shall be competent to carry out cathodic protection tasks according to written technical instructions and under the supervision of level 2 or level 3 personnel.

Within the scope of the competence defined in Annex B, level 1 personnel shall be competent to:

- i) check the calibration validity of the cathodic protection measuring and testing equipment;
- ii) perform measurements and tests as instructed;
- iii) record and classify the results of the measurements and the tests;
- iv) report the results in a comprehensible format;
- v) supervise and perform inspection and testing during installation of cathodic protection systems;
- vi) carry out routine maintenance work on cathodic protection systems.

**NOTE** Some installation works may be carried out by the level 1 personnel. If installation is undertaken by these personnel the responsibility for supervision, inspection and testing tasks by the level 1 personnel is unchanged.

Level 1 certificated personnel shall not be responsible for the choice of test method or technique to be used, nor for preparing the written technical instructions, nor for the interpretation of test results.

### 5.3 Level 2

In addition to the competences for level 1 personnel, an individual certificated to level 2 shall have demonstrated competence in:

- a) general principles of corrosion and cathodic protection;
- b) the principles of electricity;
- c) the significance of coatings and their influence on cathodic protection;
- d) a detailed knowledge of cathodic protection test procedures and safety issues.