

## 1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 2 en  
**IEXM0210 EXCAVACIÓN SUBTERRÁNEA MECANIZADA DIRIGIDA DE PEQUEÑA SECCIÓN**

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Professional Certificate Level 2 in  
**IEXM0210 MECHANISED SMALL-DIAMETER DIRECTIONAL UNDERGROUND EXCAVATION**  
(This translation has no legal status)

## 3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to excavate in underground areas using mechanised systems, for selective extraction of mineral resources or the construction of underground civil works, including the loading of extracted material, while respecting the regulations on occupational risks and environmental protection. This general competence is divided into the following **skills units** (UC):

- Excavate underground areas with raise boring equipment (UC1384\_2).
- Excavate underground areas with directional drilling equipment (UC1385\_2).
- Excavate underground areas with micro-tunnelling machines (UC1386\_2).
- Prevent risks in underground and open-pit excavations (UC0858\_1).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Excavation with raise boring equipment (MF1384\_2).
- Excavation with directional drilling equipment (MF1385\_2).
- Excavation using micro-tunnelling machines (MF1386\_2).
- Risk prevention in underground and open-pit excavations. (MF0858\_1).
- Practical training at the workplace in mechanised small-diameter directional underground excavation (MP0339) are

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Take part in the description and identification of risks, preventive safety measures and personal and collective protection equipment in underground excavations; as well as the application of established procedures in occupational risk prevention plans in case of accident, emergency or evacuation.
- Collaborate on the preparation, positioning, handling and maintenance of the raise boring equipment, in conditions of safety.
- Collaborate on the preparation, positioning, handling and maintenance of the directional drilling equipment, in conditions of safety.
- Collaborate on the preparation, positioning, handling and maintenance of the micro-tunnelling machine, in conditions of safety.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

## 4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in companies dedicated to mechanised underground excavation, either with or without the subsequent use of the excavated materials. The holder may work in the sectors of extractive and construction industries, mainly in: extraction of energy minerals (anthracite, pit coal, lignite and peat); extraction of uranium and thorium ore; extraction of metals; extraction of non-metal and non-energy minerals (limestone, anhydrite and chalk, sands and clays, minerals for fertilizers and chemical products, gem salt and others); special underground civil engineering work (construction of tunnels for roads, railways, underground railways, power stations); underground excavations for the construction of supply networks (gas, oil, water and others, including drain systems); underground excavations for the construction of the electricity network, communications, etc. The most pertinent occupations and positions are:

- Mining prospecting shaft driller.
- Miner, in general.
- Gallery construction and maintenance miner.
- Operator of machines for the extraction of minerals, in general.
- Drill operator (mines).
- Miner, in general, in small-diameter excavations.
- Gallery construction and maintenance miner, in small-diameter excavations.
- Soutirage miner, in general, in small-diameter excavations.
- Raise boring and other equipment operator.
- Directional drilling equipment operator.
- Micro-tunnelling operator.

### Requirements for exercising the profession:

The professional activities of the workers in underground mining operations, with respect to the general and specific safety regulations for the particular job, are subject to regulation by the competent government authority. The "Formación preventiva para el desempeño del puesto de trabajo" (Preventive training for the job) is required for the exercise of underground mining activity in general, as specified in the Complementary Technical Instruction (ITC 02.1.02) of the General Regulation on Basic Mining Safety Rules, approved by Royal Decree 863/1985 of 2 April.

For transport with extraction machines, the holder must have a certificate of aptitude issued by the competent mining authority, as laid down by Royal Decree 863/1985, approving the General Regulation on Basic Mining Safety Rules and the Complementary Technical Instructions (ITC 04.3.01).

For transport with automotive machines, the holder must have a certificate of aptitude issued by the competent mining authority, as laid down by Royal Decree 863/1985, approving the General Regulation on Basic Mining Safety Rules and the Complementary Technical Instructions (ITC 04.05.04).

## 5. OFFICIAL BASIS OF THE CERTIFICATE

### Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

### Level of the certificate

The Professional Certificate Level 2 of the National Repertoire of Professional Certificates corresponds to level 3 of the International Standard Classification of Education (ISCED-P 2011).

The European Qualification Framework (EQF) level:

### Grading scale/Pass requirements

The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.

The grading system is as follows:

- FAIL: 0 to 4.9
- PASS-SATISFACTORY: 5 to 6.9
- PASS-GOOD: 7 to 8.9
- PASS-EXCELLENT: 9 to 10

## 5. OFFICIAL BASIS OF THE CERTIFICATE

### Access to next level of education/training

This Professional Certificate Level 2 gives access to Professional Certificate Level 3 within the same professional area and family.

For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.

### Legal basis

Royal Decree 1530/2011 of 31 October, establishing three professional certificates in the professional family Extraction Industry, which are included in the National Repertoire of Professional Certificates. (Appendix II, Code: IEXM0210)

## 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

1. Training: Completion with a pass grade of the face-to-face or online training programme.
2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate.
3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate.

The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:

Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	83	390
Practical training at the workplace	17	80
<b>Total duration of training leading to the certificate</b>		<b>470</b>

### Entry/access requirements:

- Compulsory Secondary Education Diploma (Lower secondary education); or
- Professional Certificate Level 1 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

**Additional information:** Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: [www.sepe.es](http://www.sepe.es)

National Europass Centre: [www.oapee.es](http://www.oapee.es)

(\*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

## Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

