

## 1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 2 en  
FMEA0211 FABRICACIÓN DE ELEMENTOS AEROSPACIALES CON MATERIALES COMPUESTOS

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

Professional Certificate Level 2 in  
FMEA0211 MANUFACTURING OF AEROSPACE ELEMENTS WITH COMPOSITE MATERIALS  
(This translation has no legal status)

## 3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to manufacture pieces and elements of aerospace structures, carrying out moulding, curing and machining operations on composite polymer material, controlling the processes involved and the products made, as well as operating, setting up and providing first-level maintenance for the facilities, machines and tools, following the instructions of senior technicians and established procedures; while complying with the criteria and standards governing the company's quality, occupational risk prevention and environmental plans and with current law. This general competence is divided into the following **skills units (UC)**:

- Manufacture aerospace elements of composite material using manual moulding (UC1845\_2).
- Manufacture aerospace elements of composite material using automated moulding (UC1846\_2).
- Cure aerospace elements made of composite material (UC1847\_2).
- Machine aerospace elements made of composite material (UC1848\_2).
- Check aerospace elements made of composite material (UC1849\_2).

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

- Manufacture of aerospace elements from composite material using manual moulding (MF1845\_2).
- Manufacture of aerospace elements from composite material using automated moulding (MF1846\_2).
- Curing of aerospace elements made of composite material (MF1847\_2).
- Machining of aerospace elements from composite material (MF1848\_2).
- Checking of aerospace elements made of composite material (MF1849\_2).
- Practical training at the workplace in manufacture of aerospace elements using composite materials (MP0431)

(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:

- Manufacture aerospace elements from composite material using manual and automatic moulding, according to the corresponding technical documentation and complying with the standards governing quality, occupational risk prevention and environmental protection.
- Machine aerospace elements from composite material according to the corresponding technical documentation and complying with the standards governing quality, occupational risk prevention and environmental protection.
- 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 manufacturing of aerospace elements using composite materials and correction of any faults. The holder may work in the aeronautical and aerospace construction sectors and with their machinery, as well as in aeronautical and aerospace repair and maintenance companies. The most pertinent occupations and positions are:

- Operator of machines for cutting foil and laminates for use in the construction of aerospace elements.
- Taping machine operator for the construction of aerospace elements.
- Reinforced plastic worker (manual grinder for the construction of aerospace elements).
- *Autoclave* operator for the polymerisation of composite materials used in aerospace elements.
- Machinist of composite material for aerospace elements.
- Checker of aerospace elements made of composite material.

<b>5. OFFICIAL BASIS OF THE CERTIFICATE</b>	
<p style="text-align: center;"><b>Name and status of the national/regional authority providing accreditation/recognition of the certificate</b></p> <p>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.</p>	
<p style="text-align: center;"><b>Level of the certificate</b></p> <p>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).</p> <p>The European Qualification Framework (EQF) level:</p>	
<p style="text-align: center;"><b>Grading scale/Pass requirements</b></p> <p>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.</p> <p>The grading system is as follows:</p> <ul style="list-style-type: none"> <li>- FAIL: 0 to 4.9</li> <li>- PASS-SATISFACTORY: 5 to 6.9</li> <li>- PASS-GOOD: 7 to 8.9</li> <li>- PASS-EXCELLENT: 9 to 10</li> </ul>	
<p style="text-align: center;"><b>Access to next level of education/training</b></p> <p>This Professional Certificate Level 2 gives access to Professional Certificate Level 3 within the same professional area and family.</p> <p>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.</p>	
<p style="text-align: center;"><b>Legal basis</b></p> <p>Royal Decree 1078/2012 of 13 July, establishing two professional certificates in the professional family Mechanical Manufacturing, which are included in the National Repertoire of Professional Certificates. (Appendix II, Code: FMEA0211)</p>	

<b>6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE</b>		
<p>This certificate may be acquired by:</p> <ol style="list-style-type: none"> <li>1. Training: Completion with a pass grade of the face-to-face or online training programme.</li> <li>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.</li> <li>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.</li> </ol> <p>The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:</p>		
<b>Description of vocational training received</b>	<b>Percentage of total programme (%)</b>	<b>Duration (hours)</b>
Training modules	88	580
Practical training at the workplace	12	80
<b>Total duration of training leading to the certificate</b>		<b>660</b>
<p><b>Entry/access requirements:</b></p> <ul style="list-style-type: none"> <li>- Compulsory Secondary Education Diploma (Lower secondary education); or</li> </ul>		

- 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

