

# Module 5: Aerospace applications of cork, demanded properties from the aerospace sector

IO1 – Educational Curriculum



# Description of the module

This module deals with cork composites in aerospace applications and demanded properties from cork by aerospace sector. Current cork technology in aerospace industry is described in this module. Examples from aerospace applications are given by discussing technical benefits of cork composites.



# Description of the module

The content of this module is given below.

1. Introduction
2. Materials properties of cork composites
  - 2.1. Mechanical properties
  - 2.2. Thermal properties
3. Material selection for aerospace applications
  - 3.1. Ashby's method for materials selection
  - 3.2. Decision making methods
  - 3.3. Knowledge based systems
4. Current cork applications in aerospace structures
5. Potential applications of cork composites in aerospace structures



# Target Groups

- Engineering students from;
  - Aerospace Engineering
  - Aeronautical Engineering
  - Materials Engineering
  - Mechanical Engineering
- Engineers
- Technical staff
- Leaders



# Learning Objectives

Upon completion of this module, attendants will be able to:

- Understand the technical properties of cork composites.
- Understand the current and prospective application areas of cork composites in aerospace structures.
- Understand the advantages of cork composites over the other materials in aerospace applications.





# Self-assessment and Learning Activities

- Practice questions
- Quiz
- Module summary
- Video lectures
- Book

