

# Siemens Gamesa - SG Training Web

SE-P-16550

## Blade C Competency test

### Purpose

The overall purpose of the course is to enable the participant to expand their knowledge and skills to include the workflow scenario II according to Work Instruction D1464420 Introduction to blade structural repair.

### Who should attend?

This course is intended for Siemens Gamesa Renewable Energy's and approved subcontractor's employees whose duties include advanced repair of complicated blade structural damages on SGRE blades.

### Objectives

Upon completion of the course the participants are able to:

- Demonstrate execution of repairs according to relevant Work Instructions (WI) and Checklists (CH) which are mentioned in workflow scenarios II in Work Instruction D1464420 Introduction to blade structural repair.
- Explain with own words the structure of the Integral Blade® and the relation between inner and outer laminate by analyzing the laminate plan.
- Demonstrate safe and proper handling of grinding/sanding machines and the usage of appropriate PPE according to relevant safety rules in the work instructions.
- Practice repair quality as specified in the work instructions
- Discuss and argue why the repair is of bad quality.
- Demonstrate how to plan the work effectively so that the work gets done correctly in world quality and in the shortest possible time according to time limits given by the instructor.
- Show how to use appropriate PPE according to relevant work instructions with respect to the material (filler paint and resin etc.) being used.
- Demonstrate how to document (Photo card, check lists, etc.) the repair work both before during and after repair work.
- Show how to work safely with epoxy, mixing 2-component material and handle it as specified in the relevant Safety Data Sheets (SDS).
- Demonstrate and perform quality control on own and others' fiberglass repair work with relevant technical explanation according to work instructions.
- Demonstrate correct sorting of waste.

#### Competencies

Upon completion of the course the participants have obtained the following competencies:

To execute repairs according to relevant Work Instructions (WI) and Checklists (CH) which are mentioned in workflow scenarios II in Work Instruction D1464420 Introduction to blade structural repair

### Prerequisites

At least 5-6 months of experience with glass fiber repairs in terms of grinding, painting and finishing on Wind turbine blades.

Personal Safety when working with Epoxy and Isocyanates in accordance with Executive Order No. 1793, issued by the Danish Working Authority.

It is the responsibility of the participant's employer / supervisor / foreman that he has adequate blade repair field experience to participate in the Blade C competency test.

# Siemens Gamesa - SG Training Web

SE-P-16550

## Blade C Competency test

### Contents

Introduction  
Welcome and safety information  
Personal safety in relation to work with epoxy resins and isocyanates  
Assembly of grinder and respirator  
Safe use of grinder  
General repair  
Using photo card  
Review of relevant work instruction and check lists  
How to order a specific laminate plan  
Review of laminate plan  
Repair blade to balsa (See D1464420)  
Curing with heating blanket  
Take Tg. sample  
Repair blade in an area with balsa (See D1464420)  
Apply filler on the repair  
Painting the repair  
Assessment of the repair

### Theory / Practice

5% / 95%

### Notes

### Validity

12 months

It is the responsibility of the participant's employer / supervisor / foreman that the participant has adequate blade repair field experience to participate in the Blade C competency test.

If the assessment is not passed, a Blade C: Repair of complicated blade structural damage (SE-P-16000) must be completed and passed.

### Only DK ICB Material No.

A9BS0000195

### Export control

AL-Number: N

ECCN: EAR99