



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Damaged Polymer Composite Repair Preparation Techniques Training

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 110278 · NQF Level 2 · 6 Credits · 3 Days

COURSE OVERVIEW

This course equips learners with the skills to prepare damaged polymer composite surfaces for repair, ensuring structural integrity and adhesion. It covers assessment, cleaning, and surface profiling techniques aligned with industry standards. Learners will gain hands-on experience in safe and effective preparation methods.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	110278
Accreditation	SAQA Accredited · NQF Level 2 · 6 Credits
Duration	3 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Identify and assess various types of damage in polymer composite structures.
- Apply appropriate cleaning and solvent-wiping methods to remove contaminants.
- Demonstrate correct abrasion and surface profiling techniques for optimal adhesion.
- Evaluate surface readiness using test methods such as water-break and peel tests.
- Implement safety procedures for handling composite materials and chemicals.

WHO SHOULD ATTEND

- Technicians, maintenance personnel, and composite repair specialists in aerospace, automotive, marine, and wind energy sectors.
- Also suitable for quality assurance staff overseeing repair processes.

COURSE OUTLINE

Day 1: Introduction to Polymer Composites and Damage Assessment

- Overview of polymer composite materials: fibres, matrices, and laminates.
- Mechanical properties and failure mechanisms.
- Types of damage: impact, delamination, cracks, moisture ingress, and thermal degradation.
- Non-destructive testing (NDT) methods: visual, tap test, ultrasonic, and thermography.
- Damage mapping and documentation.
- Safety, health, and environmental considerations in composite repair.

Day 2: Surface Preparation and Repair Material Selection

- Surface preparation: abrasion, solvent cleaning, and drying.
- Contamination control: dust, oil, and moisture removal.
- Repair material selection: prepregs, wet lay-up, adhesives, and core materials.
- Storage, handling, and expiry management of repair materials.
- Vacuum bagging and curing fundamentals.
- Quality assurance of prepared surfaces.

Day 3: Repair Application Techniques and Quality Assurance

- Step-by-step repair process: scarfing, patching, and bonding.
- Vacuum bagging techniques: bag materials, sealant tape, and leak checks.
- Curing cycles: temperature, pressure, and time control.
- Post-repair NDT and mechanical testing.
- Repair documentation and traceability.
- Common defects and troubleshooting.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **6 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 17,900.00	R 17,900.00
1	In-House	R 23,300.00	R 23,300.00
1	On-Campus (Pretoria)	R 26,800.00	R 26,800.00

UPCOMING SESSIONS

Start	End	Method	Venue
03 Aug 2026	05 Aug 2026	On-Campus	Dubai, UAE
03 Aug 2026	05 Aug 2026	On-Campus	Johannesburg, South Africa
04 Aug 2026	06 Aug 2026	On-Campus	Pretoria, South Africa
04 Aug 2026	06 Aug 2026	On-Campus	Mauritius
05 Aug 2026	07 Aug 2026	On-Campus	Cape Town, South Africa
05 Aug 2026	07 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	12 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	12 Aug 2026	On-Campus	Mauritius

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 110278) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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