



# Fiberglass ladders

# Introduction

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- Tractel commercializes a range of fiberglass ladders produced by our sister company Alimak Group Denmark.
- These ladders are a complement to our offering. They are an opportunity for our distributors to offer differentiating products particularly suited for:
  - Electricity utilities
  - Electro industry
  - Electronics
  - Chemical industry
  - Food industry
- These are also a good offering for low-tension electrical professionals with whom we do direct business in some countries
  - Complies with the Dielectric test, ref. EN 131-2:2010+A1:2012 section 5.16.3 (1000V)
- Main benefits of these ladders
  - Electrically insulated
  - Easy to clean, leave hands clean
  - Different applications are possible
  - Salt water resistant

# The unique fiberglass ladders

Fibreglass, with its insulating properties, resilience and strength, is particularly suitable for use in the chemical industry, offshore, gas and electricity. Fiberglass ladders are the perfect choice for industry where the material's insulating power, resilience and strength are important.



# Unique technology

- Complies with the Dielectric test (1000V)
- Salt water resistant
- Interior anti-slip shoes
- Easy to clean
- Resists strong cleaners
- Non-metallic
- All colors are possible (upon request)
- Easy repair (exchangeable steps)
- Customizable solution





# Range offered by Tractel

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Products portfolio presentation :



**Single ladder**



**Double-sided stepladder**




**Double-sided stepladder  
deep steps**



**Single-sided stepladder  
deep steps**

# Certification

- **EN 131 Compliant**
  - Swedish Type Approval Certificate from an Accredited Test Institute
    - Certified by RISE (Research Institutes of Sweden AB)
- **Dielectric Test Passed**
  - Meets Electrical Safety Standards per EN 131-2:2010+A1:2012, Section 5.16.3 (1000V)




**RISE**

**TYPKONTROLLINTYG**

SC0301-17

**Stegar**

Utfärdat till/tillverkare  
Alimak Group Denmark A/S



**RISE**

REPORT

Date: 2017-12-11    Reference: MTZ7P07893-R01    Page: 7 (7)

**Results**

**Summary**

Electrical type test according to SS-EN 131-2:2010+A1:2012 section 5.16.3.

Identification number	Type	Distance d between 2 rungs (mm)	Applied Voltage for 1 min* (V)	Site surface temperature before applied voltage (°C)	Site surface temperature after applied voltage (°C)
211.006	one-piece leaning rung ladder, 6 rungs	280	933	23.0	23.0

\*The applied voltage is defined as Um (Volt) = 1000 x d/300

The tested ladder passed the test without flashover, puncture or temperature rise on the insulation material.

**Measurement uncertainty**

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k = 2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty has been determined in accordance with EA Publication EA-402.


The high voltage measuring equipment has an uncertainty less than  $\pm 0.15 \%$ .  
The measuring equipment for water conductivity has an uncertainty less than  $\pm 0.5 \%$ .

**Conclusion**


The tested ladder fulfils the requirements for dielectric test in accordance with SS-EN 131-2:2010+A1:2012 section 5.16.3.

**RISE Research Institutes of Sweden AB**  
Measurement Science and Technology - High Voltage

Performed by

  
Martin Flood

Examined by

  
Allan Bergman

teknisk dokumentation enligt

miljöövervakning  
Svegrer SPCR 064 daterad 2017-12-11

RISE nedan)  
kare, produktnamn, stegtyp  
verkningsnummer samt antal

intygs giltighet kan verifieras

kontrollintyget utfärdades

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RISE Research Institutes of Sweden AB

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# Industries

Fiberglass ladders are used in many industries such as:

- Electricity utilities
- Electro industry
- Electronics
- Energy
- Chemical industry
- Food industry



## Where is it produced ?

### A view of Alimak Group Denmark ladders manufacturer

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# Alimak Group Danemark

Alimak Group Danemark proudly manufactures ladders under the renowned brands Avanti and Silkeborg Stigefabrik (Silkeborg Ladder Factory).

The Silkeborg Ladder Factory was founded in 1948 and under Silkeborg Stigefabrik brand was originally a wooden ladder manufacturer.

Today Alimak Group Denmark's largest supplier of:

- ladders in wood, aluminium and fibreglass
- scaffolding and custom solutions.

**The primary markets covers the construction industry and the DIY in both Denmark and abroad.**



## Q&A

- ❑ **Are the ladders considered PPE?**

No, it is not. But you can also purchase the PPE products manufactured by Tractel.

- ❑ **What are the key documents available?**

User manual, technical data sheet are available by scanning the QR Code on the label.

- ❑ **Where are the ladders ordered from?**

The ladders are ordered from Alimak Group Denmark

- ❑ **Are they sent to the Tractel company?**

They can be sent either to the customer or Tractel, depending on the order.

- ❑ **Do we keep stock at Tractel TSAS?**

No, lead time is approximately 3 weeks.

## Q&A

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- **Are the ladders reparable?**

Yes, they are, the repair manual and spare parts list available on request.

- **Who can repair?**

Customer can repair themselves.

- **Can the ladders come in a different color?**

The standard yellow color is embedded in the fiberglass. Other colors can be embedded or painted, but this requires more time and depends on the **order volume**.



## Applications examples

