

# Application of ELLE™ Onshore Factory Installation

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## Imprint

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## 1. General Information






### 1.1 Change Description

The table below describes changes compared to the previous revision of the document.

Section	Description
All	New document.





### 1.2 Safety

Wear PPE as defined in the table below.

	<b>For all tasks</b> Wear foot protection.
	<b>For all tasks</b> Wear eye protection.
	<b>For all tasks</b> Wear protective gloves.
	<b>For the sanding task (section 3.4)</b> Wear protective clothing (long-sleeved work clothing).
	<b>For tasks where sufficient venting is not possible</b> Wear respiratory protection. ■ Recommended filter type: A2, P2.

### 1.3 Icons and Notes

The table below defines the meaning of icons that appear in this document.

Icon	Definition
	<b>Caution or Warning</b> Details about risk of personal injury.
	<b>Note</b> Details about risk of property damage.
	Reference to additional documentation.
	Details about time constraints.

## 1.4 Required Documentation

The table below lists other required documentation.

<b>Safety Data Sheet</b>	<ul style="list-style-type: none"> <li>■ IPA Sprit 95% (minimum) Polytech</li> <li>■ 3M™ Wind Tape Adhesion Promoter W9910-1</li> </ul>
<b>Technical Data Sheet</b>	<ul style="list-style-type: none"> <li>■ LE-D043 ELLE™ Onshore</li> <li>■ 3M™ Wind Tape Adhesion Promoter W9910-1</li> </ul>

## 1.5 Abbreviations

The table below defines the abbreviations used in this document.

Abbreviation	Full Form
IPA	Isopropanol alcohol
PPE	Personal Protective Equipment
SS	Suction side of the blade
PS	Pressure side of the blade

## 2. Preparation

### 2.1 Environmental Conditions

The table below defines the temperature and humidity requirements during installation.



Refer to Technical Data Sheets for storage and transportation requirements.

Property	Value	Unit
Surface temperature	10 ... 35	°C
	50 ... 95	°F
Relative humidity	0 ... 100	%

## 2.2 Tools and Consumables

The table below defines the required tools and consumables.

Tools	
Item	Type
Application roller	Special Polytech tool
Measuring tape	-
Permanent marker	Carbon-free
Roller	-
Sander	-
Scissor	-
Spray bottle	-
Squeegee	Plastic spatula with felt
Consumables	
Item	Type
Adhesion promoter	3M™ Wind Tape Adhesion Promoter W9910-1
Application solution	Mixture of 95% (minimum) isopropanol and demineralized water. Mixing ratio: 75% water / 25% isopropanol.
Cleaning agent	Isopropanol 95% (minimum) Alternative: Soap (neutral)
Cloths	Lint-free
Masking tape	-
Sanding disc	Grit 220 to 240
Sandpaper	Grit 220 to 240

### 3. Installation

#### 3.1 Preparation

##### Before Starting

Cut a stripe of *ELLE™ Onshore* and use it as a template

##### Step 1

Cut a rectangular stripe - approx. 100 mm. of the *ELLE™ Onshore*.



##### Step 2

Mark the center in each side of the stripe and draw a straight line between the two markings.

- Use a permanent marker
- The stripe (template) will be used to do the marking of area where the final *ELLE™ Onshore* product will be located on the blade.



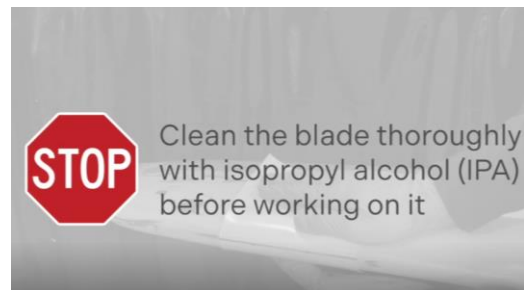
**Step 3**

Clean the blade thoroughly with the cleaning agent (IPA isopropyl alcohol) before next step.

Clean/wash substrate to remove contamination, for instance salt sediment.

Use either:

- A neutral soap dispersed in water and a brush if blade is very dirty or full of salt
- or:
- Isopropyl alcohol IPA (minimum 95%) and a brush

**End**

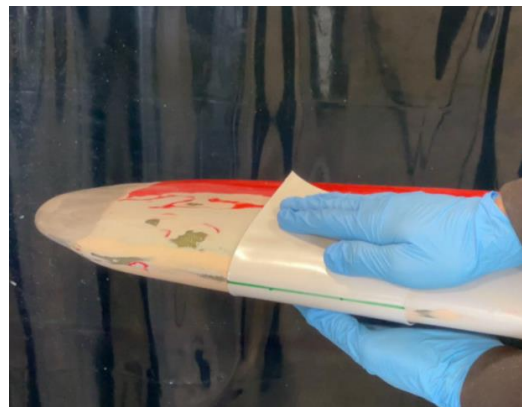
## 3.2 Marking of Application Areas

**Step 1**

Mark the length and width of *ELLE™ Onshore* to determine the desired area for the application. Installation must be made as close to the TIP of the blade as possible, without causing wrinkles.

**Step 2**

Align the template's centerline visually with the leading edge centerline of the blade.





**Step 3**

Mark the width of the application area using the template and a permanent marker.

**Note**

Do not use black marker or pencil.

**Step 4**

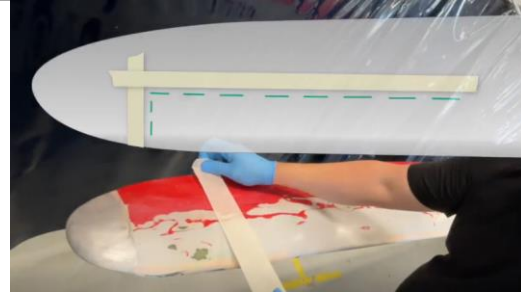
Repeat the markings on the blade all the way to the root end.

- Important: Do the markings on both sides of the blade (SS & PS)

**End**

### 3.3 Applying masking tape

#### Step 1



Apply masking tape approx. 10 mm outside the start markings at the TIP and at the end markings at the root.



**Note**  
Do not cover the marks



#### Step 2

Apply the masking tape in a straight line along the side marks on both sides of the blade SS & PS.



**Note**  
Do not cover the marks



#### End

### 3.4 Sanding of Surface

#### Before starting

##### PPE info



Wear protective clothing (long-sleeved work clothing).

#### Step 1

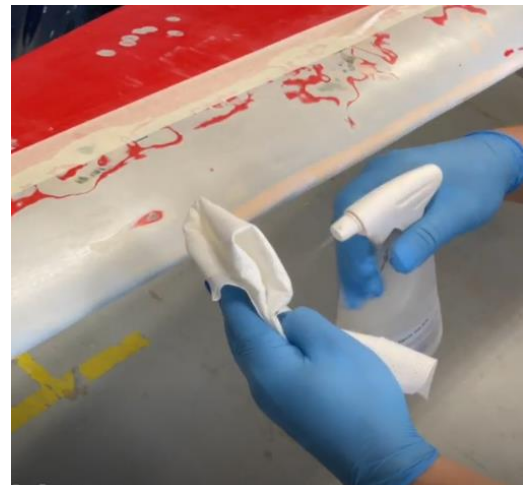
Sand the entire masked application area.

- Use sandpaper grit 220 to 240.
- Shiny areas on the sanded surface after sanding are not accepted.



#### Step 2

Remove dust with cleaning agent (95% (minimum) IPA isopropanol) and a lint-free cloth.



#### End

### 3.5 Applying adhesion promotor

#### Before starting

Make application solution by mixing demineralized water and 95% (minimum) isopropanol and put application solution into a spray bottle.

- Mixing ratio: 75% demineralized water, 25% isopropanol.

#### Step 1

Use the template to mark the center line for at least each meter of the leading edge of the blade. Do this for the entire application length



#### Note

Do not use a black marker or a pencil.

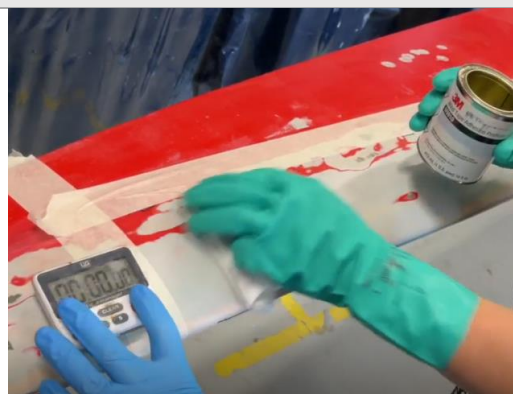


#### Step 2

Apply a thin layer of adhesion promoter 3M W9910 on the blade, using a damp, lint-free cloth.



Allow the adhesion promoter to dry for 10 minutes going to the next step.

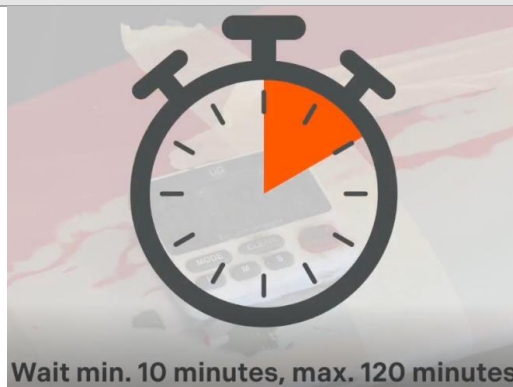


#### Step 3

The *ELLE™ Onshore* must be applied within 2 hours after activating the blade.

If you are **NOT** able to finalize the application within 120 minutes you need to:

- Stop your work
- Reactivate the remaining area
- Wait 10 minutes before you proceed

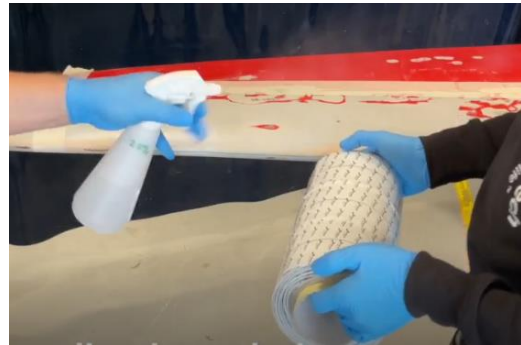


#### End

### 3.6 Application of ELLE™ Onshore

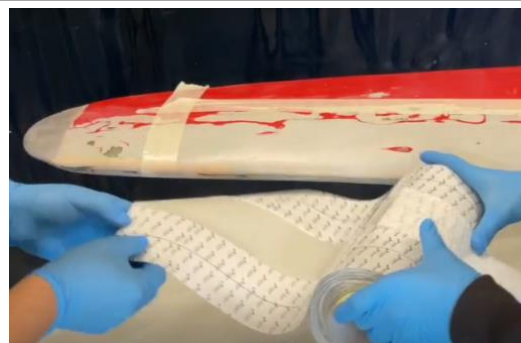
#### Step 1

Spray the application area with plenty of the application solution, making the application area visibly wet.



#### Step 2

- Remove a minor part of the center liner from *ELLE™ Onshore* without touching the pressure sensitive adhesive with bare hands.



#### Step 3

- Apply *ELLE™ Onshore* in the center of the masked application area.
  - Start from TIP end.



#### Step 4

- Use the application roller to fix *ELLE™ Onshore* to the leading edge of the blade, and remove all air and application solution entrapment at the same time.



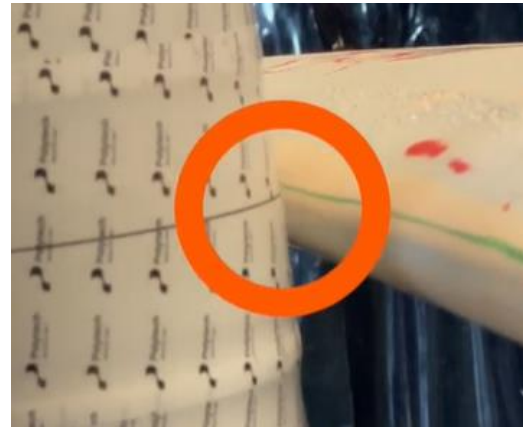


**Step 5**

- Spray the application area with plenty of application solution.

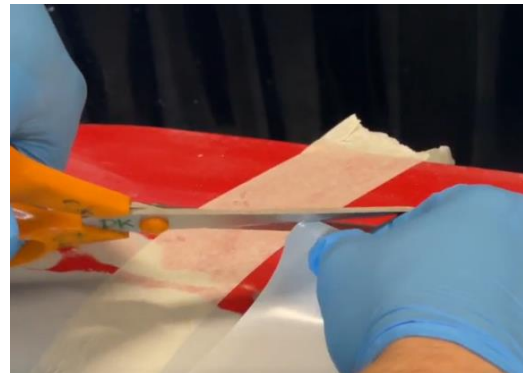
Roll out more *ELLE™ Onshore* and align the center liner marking with the marking on the blade

Continue with this task until the root end is reached.



Meanwhile an operator can start from the TIP end to apply *ELLE Onshore* to the remaining part of the blade.

- Start with rounding the two corners in the TIP end using a scissor, radius = 10 mm.



- Spray the blade surface with plenty of the application solution.
- Spray the outside area of the *ELLE™ Onshore* with plenty of the Application solution to reduce friction when removing air entrapments.

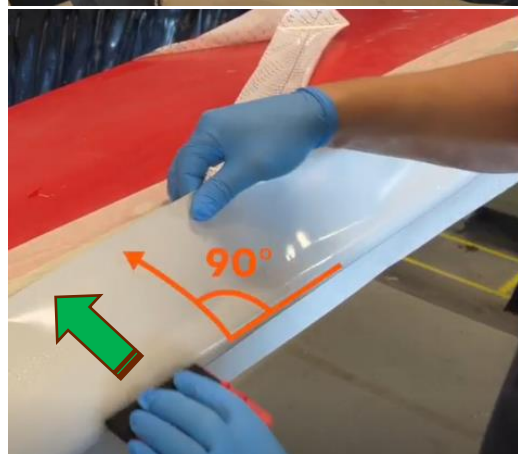


**Step 6**

- Remove the side liner from *ELLE™ Onshore* without touching the pressure sensitive adhesive with bare hands.



- Remove the air and application solution entrapments using a squeegee, pushing from the center of the leading edge to each side.



**Step 7**

Finishing the attachment of *ELLE™ Onshore* to the root end.

1. Cut of the roll of ELLE™ to align the application region.
2. Round the two corners using a scissor.

**Step 8**

Carefully finalize the application at the end of the application area, on both sides of the blade

**Step 9**

Time critical process.

**PLEASE NOTE!**

If you are NOT able to finalize the application within 120 minutes, you need to

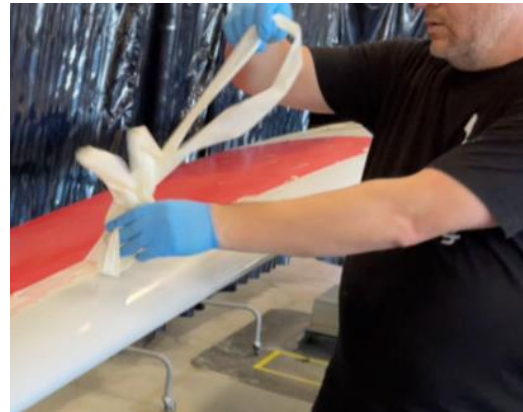
- stop your work,
- reactivate the remaining area, and
- wait 10 minutes before you proceed.





**Step 10**

Finally remove all masking tape

**End**

## 4. Technical Support

**E-mail**

[support@polytech.com](mailto:support@polytech.com)

Answers will be sent within one working day.

**Phone**

+45 88 444 500

Available 8:00-17:00 CET.

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Please include the following information in your support request:

- Product name.
- Product type.
- Serial number.
- Description of the problem, including detailed, high-resolution pictures.