

ELLE® Onshore Installation Critical Steps.

PURPOSE OF THIS INSTRUCTION

This instruction describes the critical steps for the application of ELLE® Onshore. Failure to follow these requirements creates a significant risk of reduced adhesion, air bubble formation, and detachment of ELLE® Onshore.

ENVIRONMENTAL CONDITIONS

Do not carry out installation below 10°C / 50°F. At low temperatures, the adhesive may become too firm to properly wet out the substrate, resulting in reduced tack, poor bond formation, and possible material damage during application.

Do not carry out installation above 35°C / 95°F. At high temperatures, the adhesive may become overly soft or aggressive, making handling difficult and increasing the risk of premature bonding before final positioning is complete.

CLEANING BEFORE SANDING

Before sanding

Make sure that the blade surface is properly cleaned with IPA alcohol to remove any contamination before sanding. If contamination is sanded into the surface, there is a risk that adhesion of ELLE® Onshore to the blade will be reduced.

SANDING

Make sure that no shiny spots remain after sanding the application area. Unsanded areas will significantly reduce adhesion of ELLE® Onshore to the blade.

Always finish sanding with 220 to 240 grit sandpaper. Using a different final grit may significantly reduce adhesion of ELLE® Onshore to the blade.

Avoid sanding defects such as flat spots, holes, gouges, or other surface damage in the application area. Such defects may reduce surface quality, prevent proper adhesive contact, and negatively affect the adhesion and long-term performance of ELLE® Onshore.

Do not sand into the composite material. Sanding too deeply may expose fibers, which can create surface defects and negatively affect adhesion and long-term installation performance.

CLEANING AFTER SANDING

After sanding

Make sure that the blade surface is properly cleaned with IPA alcohol after sanding. Improper cleaning will significantly reduce adhesion of ELLE® Onshore to the blade.

ADHESION ACTIVATOR

All sanded installation areas on the blade must be treated with an allowed adhesion promoter. The adhesion promoter increases the surface energy of the substrate, improving the bond strength of the PSA adhesive to the blade. Failure to apply the allowed adhesion promoter will significantly reduce adhesion of ELLE® Onshore to the blade.

Ensure that the application cloth is thoroughly wetted with the allowed adhesion promoter to avoid untreated spots. Re-wet the cloth as necessary during application to maintain complete and uniform coverage. Any missed areas may significantly reduce adhesion of ELLE® Onshore to the blade.

INSTALLATION OF ELLE® Onshore

Do not install ELLE® Onshore onto freshly applied solvent-borne paint. The paint must be fully cured in accordance with the paint manufacturer's requirements before installation begins. Applying PSA to uncured or recently applied paint may result in solvent entrapment, surface instability, reduced bond strength, and formation of air bubbles.

During installation, ensure that all application solution is thoroughly squeezed out from between the blade surface and the PSA adhesive. No visible residues of water or IPA may remain at the bond line. Trapped liquid will prevent proper adhesive contact with the substrate and may cause poor bonding, early bond failure, and formation of air bubbles. All bonded areas of ELLE® Onshore must be pressure activated to create full and intimate contact between the PSA adhesive and the blade surface. Apply firm and uniform pressure across the entire bonded area, with particular attention to edges, overlaps, and contours. Insufficient pressure activation will significantly reduce adhesion and may leave areas of incomplete contact where air bubbles can form.

Avoid overstretching ELLE® Onshore during positioning and application. Excessive stretching may create internal stress in the material, causing shrink-back after installation. This can increase edge lift, reduce adhesive contact, and contribute to the formation of air bubbles over time.

Make sure that no air bubbles remain outside the allowed specification. Air entrapment may prevent proper adhesive contact and can expand over time, increasing the risk of edge lifting and localized bond failure.

Failure to follow these installation requirements may result in poor adhesive contact, trapped air or liquid, formation of air bubbles, reduced bond strength, and premature lifting of ELLE® Onshore from the blade.



ELLE® Onshore INSTALLATION ACCEPTANCE CHECKLIST

No.	Checkpoint	Acceptance Criteria	Technician Entry
1	Installation date	Record installation date	_____
2	Turbine / Blade ID	Record turbine and blade identification	_____
3	Ambient temperature	Between 10°C and 35°C	_____ °C
4	Ambient temperature	Verified within allowed range	☐ Checked
5	Cleaning before sanding	Blade surface cleaned with IPA alcohol before sanding	☐ Completed
6	Application area sanding	No shiny spots remain in bonding area	☐ Completed
7	Final sanding grit	Final sanding complete with 220 – 240 grit	☐ Completed
8	Sanding quality	No sanding defects such as flat spots, holes, gouges, composite fiber exposure or similar surface damage in the application area	☐ Checked
9	Cleaning after sanding	Blade surface cleaned with IPA alcohol after sanding	☐ Completed
10	Adhesion promoter applied	All sanded installation areas treated with allowed adhesion promoter	☐ Completed
11	Adhesion promoter coverage	Full and uniform coverage achieved, no missed areas	☐ Checked
12	Paint condition	No freshly applied solvent-borne paint in bond area	☐ Checked
13	Paint cure status	Any paint in bond area fully cured before installation	☐ Checked
14	Application solution removal	All application solution squeezed out during installation	☐ Completed
15	Bond line condition	No visible water or IPA residue remaining between blade and PSA	☐ Checked
16	Pressure activation	Full bonded area pressure activated, including edges, overlaps, and contours	☐ Completed
17	Material handling	ELLE® Onshore installed without overstretching	☐ Checked
18	Air bubbles	No air bubbles outside allowed specification	☐ Checked
19	Final installation status	Installation accepted	☐ Pass / ☐ Fail
20	Technician name	Record technician name	_____
21	Technician signature	Signature	_____