



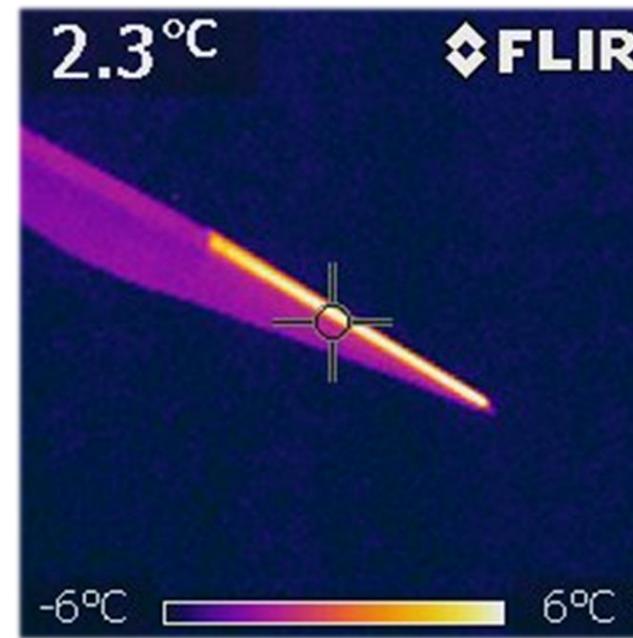
Blade Solutions

inspection & repair

Hotspot resistant blade heat system

Blade heat systems

- Hot air – Enercon, Vestas
- Carbon heat mat, Wictec, Nordex, Simens



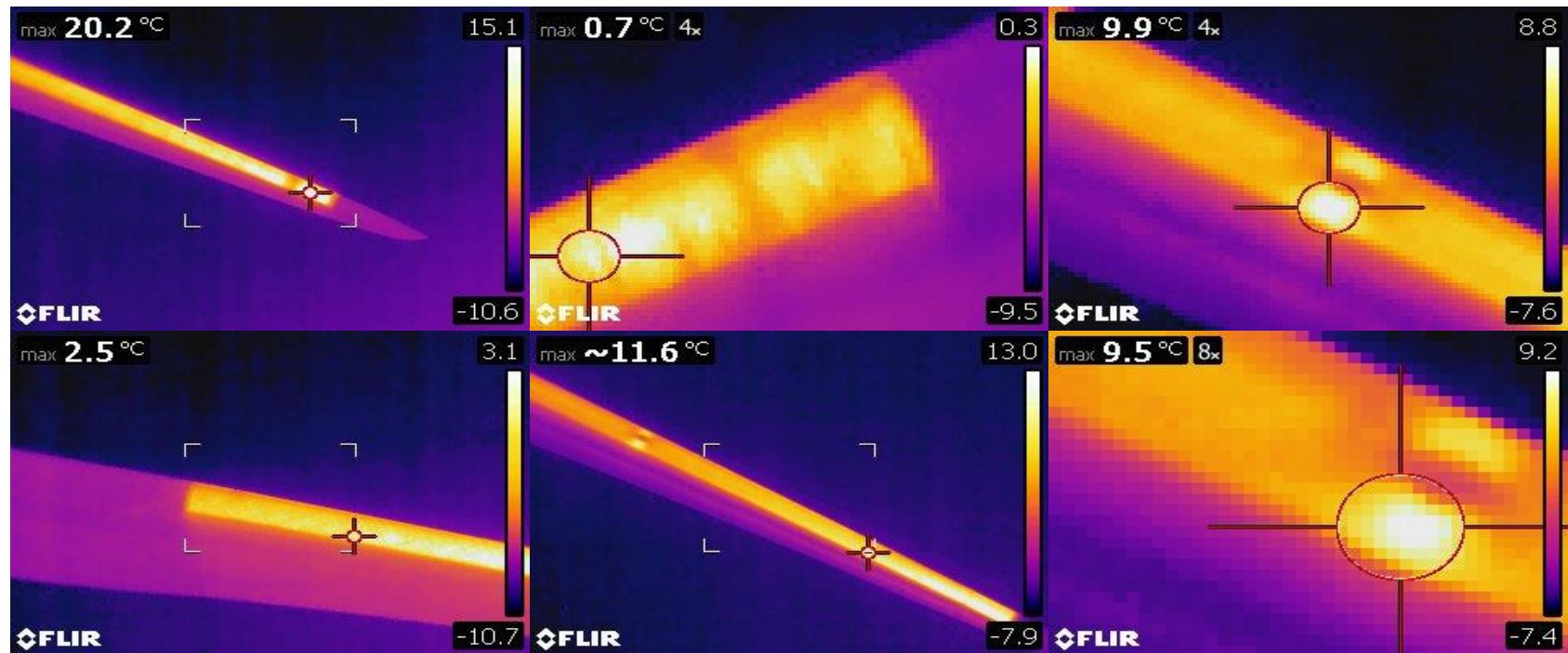
Ice on blades



Thermal inspection



Thermal inspection

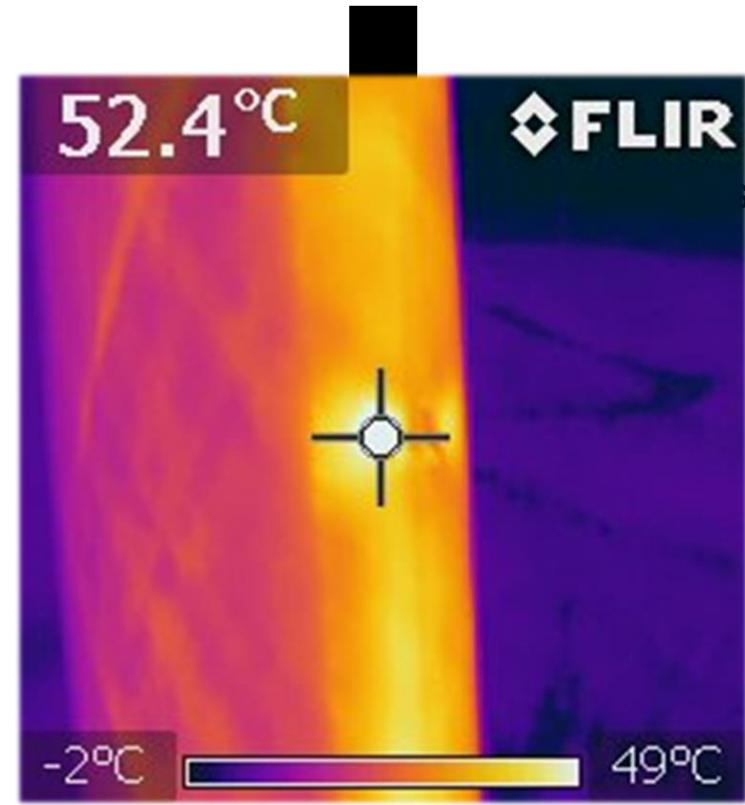


Set value at tip, ~20 °C

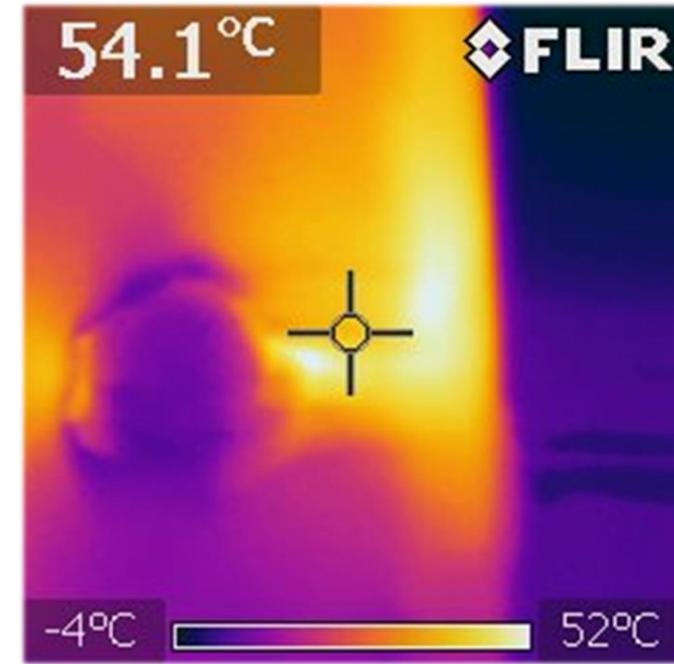
Carbon heat mat inspections



Impact



Carbon heat mat inspections

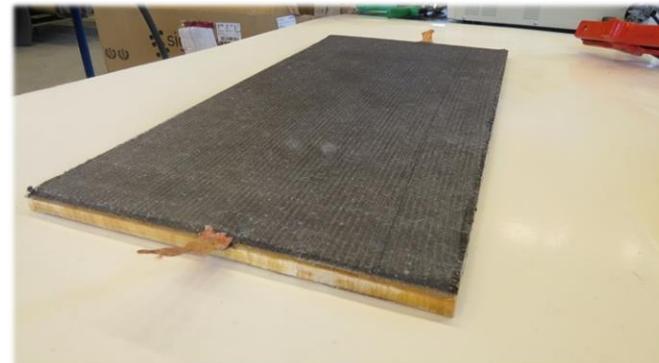
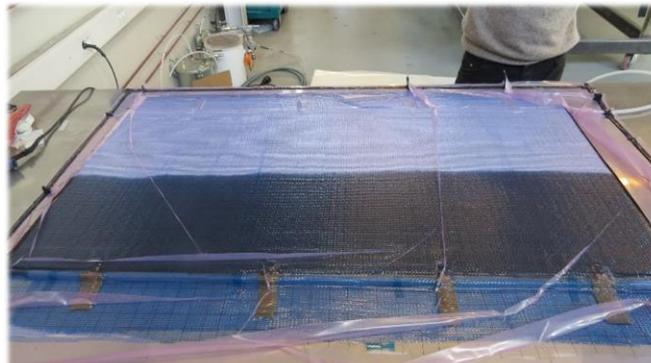
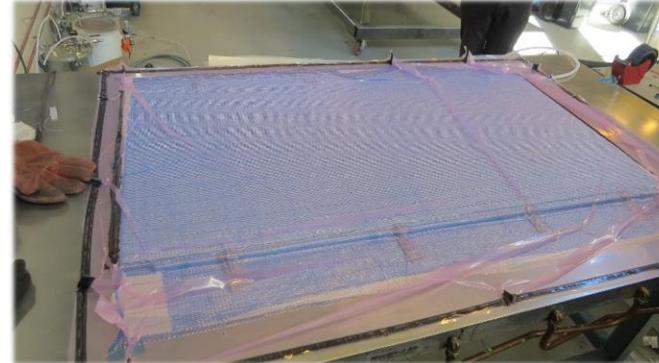


Lightning

Hotspots



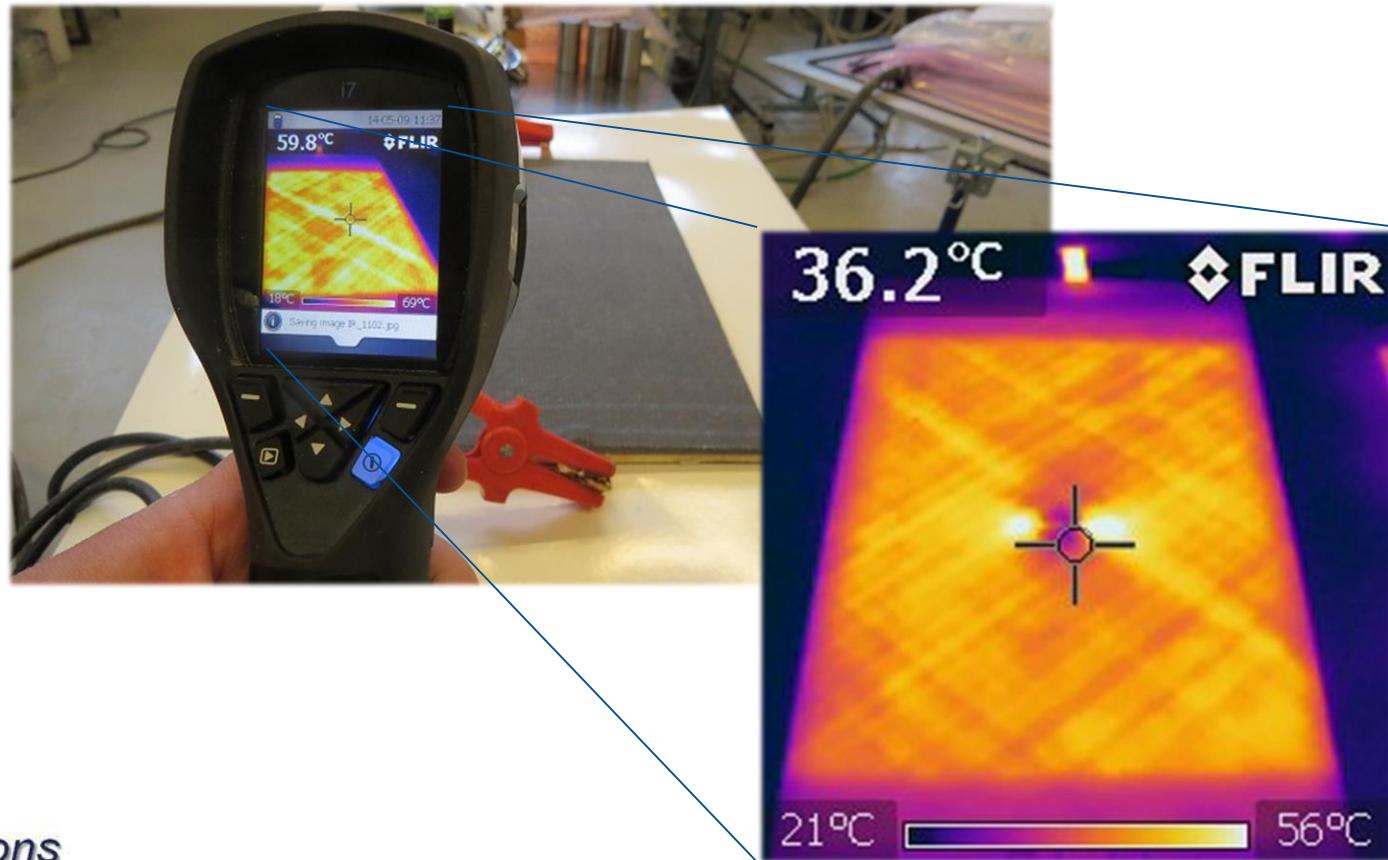
Specimen manufacturing



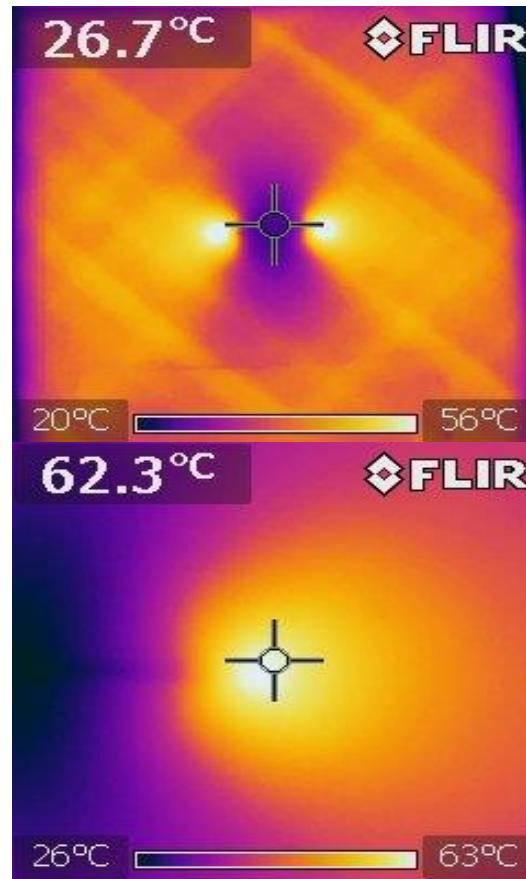
Impact and lightning damage



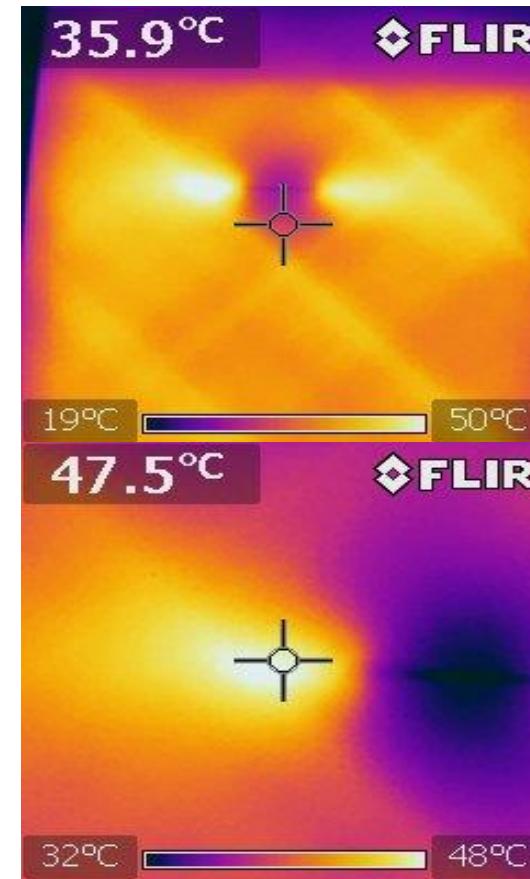
Hotspots around damages



Hotspot temperature at 40°C blade heat



Standard system



New system

Prototype of the new system

