

## Structuring and preparation of a lesson: EAB module 7 (Benefits and Limitation of Adhesive Bonding Technology)

time	Theme, core information, statements or questions	Learning objectives <sup>1</sup>	Methods (e.g. presentation/ discussion/group work)	Media/ training material
2 h	<p>Knowledge about the benefits</p> <ul style="list-style-type: none"> <li>• Connection of different materials</li> <li>• Weight savings</li> <li>• Heat-sensitive materials</li> <li>• Joining thin flights parts increase the dynamic strength</li> <li>• Thermal material influence</li> <li>• Lightweight applications</li> </ul> <p>Knowledge about the disadvantages</p> <ul style="list-style-type: none"> <li>• Special process management</li> <li>• Strength calculations</li> <li>• Curing times</li> </ul> <p>Knowing the limits of</p> <ul style="list-style-type: none"> <li>• Limited thermal load capacity</li> <li>• Long-term stability</li> <li>• Peel strength, creep</li> <li>• Non destructive testing</li> <li>• Aging</li> </ul> <p>Repairs, disassembly, disposal</p>	<p>Demonstrate theoretical knowledge about the advantages and disadvantages of adhesive technology in the different application areas compared with other technologies (1)</p> <p>Demonstrate theoretical knowledge about the limits</p> <ul style="list-style-type: none"> <li>• the thermal load capacity,</li> <li>• the behavior of the adhesive over longer periods of time,</li> <li>• possible test procedures,</li> </ul> <p>repair dismantling and disposal(1)</p>	<p>Demonstration of the benefits of connecting different material using adhesives</p> <p>Demonstration of disadvantages theoretically</p> <p>Presentation of an overview of application technologies</p> <p>Presentation of an overview of checklist for the bonding process</p>	<p>White board.</p> <p>(Slides presentation).</p>

<sup>1</sup> (1) Know and understand, (2) transfer and practically apply, (3) analyze and assess; (0) no learning objective; additional information