



U6 – Building Physics and Sustainability

Objectives: <ul style="list-style-type: none"> • thermal comfort (radiation, temperature, air movement, ...) • condition of personal thermal comfort due to activities and clothing (clo factor) • relative humidity comfort zone (winter, summer) • the importance and principles of cold and heat protection in winter and summer • capacity of straw in thermal and humidity storage (advantage improving living comfort) • limits of acceptable amount of draft depending on temperature • off-gassing of materials (VOC, MVOC) • relative humidity limits indoor, to prevent organic material from moulding Methods: <ul style="list-style-type: none"> • lectures, exercises, workshop 		Trainer: Place: lecture workshop Duration: 4 hours Equipment: laptops beamer flip-chart prepared examples
Theory	lectures, charts, presentations ...	Documents: Info sheet 11 comfort & health in indoor-climate (off-gassing, VOC)
Practice	Task <ul style="list-style-type: none"> • working groups with 3–4 participants working on detail examples • explain air-tightness measures on selected details • measuring surface temperatures on different materials (in winter period) • measuring humidity • detecting leakages in building elements by simple methods • checking glass quality of windows by mirroring a flame 	Text sheet Slide Show: Overview Building Physics national/international
Organisation prepare workspace for participants with enough places, WiFi / w-lan, copy text-sheets for multiple choice tests or have them online (e-learning) prepare examples of details to work with in groups plus discussion find different material resources for physical recognition (i.e. touching material with different lambda value at same temperature (steel, insulation, wood, glass, etc.) radiation intensity examples....		