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1.3.5 inside/outside air pressure differentials

1.4 references2 performance metrics and arrays; 2.1 definitions; 2.2 functional demands; 2.3 performance requirements; 2.4 some history; 2.5 performance arrays; 2.5.1 overview; 2.5.2 in detail; 2.5.2.1 functionality; 2.5.2.2 structural adequacy; 2.5.2.3 building physics related quality; 2.5.2.4 fire safety; 2.5.2.5 durability; 2.5.2.6 maintenance; 2.5.2.7 costs; 2.6 references; 3 functional requirements and performances at the building level; 3.1 thermal comfort; 3.1.1 in general; 3.1.2 physiological basis; 3.1.3 global steady state thermal comfort; 3.1.3.1 clothing
3.1.3.2 heat flow between the body and the environment3.1.3.3 comfort equations; 3.1.3.4 comfort parameters; 3.1.3.5 equivalent environments and comfort temperatures; 3.1.3.6 comfort appreciation; 3.1.4 local discomfort; 3.1.4.1 draft; 3.1.4.2 vertical air temperature difference; 3.1.4.3 radiant temperature asymmetry; 3.1.4.4 floor temperature; 3.1.5 transient conditions; 3.1.6 comfort-related enclosure performance; 3.2 health and indoor environmental quality; 3.2.1 in general; 3.2.2 health; 3.2.3 definitions; 3.2.4 relation between pollution outdoors and indoors
3.2.5 physical, chemical and biological contaminants3.2.5.1 process related; 3.2.5.2 material related; 3.2.5.3 ground related; 3.2.5.4 combustion related; 3.2.6 bio-germs; 3.2.6.1 bacteria; 3.2.6.2 mould; 3.2.6.3 dust mites; 3.2.6.4 insects; 3.2.6.5 rodents; 3.2.6.6 pets; 3.2.7 human related contaminants; 3.2.7.1 carbon dioxide (co2); 3.2.7.2 water vapour; 3.2.7.3 bio-odours; 3.2.7.4 environmental tobacco smoke; 3.2.8 perceived indoor air quality; 3.2.8.1 odour; 3.2.8.2 inside air enthalpy; 3.2.9 sick building syndrome; 3.2.10 contaminant control by ventilation
3.2.10.1 ventilation effectiveness

Sommario/riassunto

The energy crises of the 1970s, persisting moisture problems, complaints about sick buildings, thermal, visual and olfactory discomfort, and the move towards more sustainability in building construction have pushed Building Physics to the forefront of building innovation. The societal pressure to diminish energy consumption in buildings without impairing usability acted as a trigger to activate the whole notion of performance based design and construction. As with all engineering sciences, Building Physics is oriented towards application, which is why, after a first book on fundamentals this s