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## Water condensation on glass

External condensation of steam on the glass is a visible sign of low heat transmittance U-value, i.e. a high level of thermal insulation of the window, and it is a natural process. It may appear on any surface when its temperature falls below the dew point of ambient air – especially on smooth surfaces such as glass. A well-known example is water steam which we need to remove from our car windscreen in the morning if the car has been left outside on a warm night or steam inside the car in autumn and winter. The same phenomenon may also occur on windows if cold temperature of the air on a cloudless day is not balanced by heat loss through the window. Modern insulating glass units provide good thermal insulation (low heat transmittance U-value), which means that the phenomenon may occur on a cloudless day and windless night.

In case of condensation, patterns may appear on the glass surface – which are normally not visible to the naked eye. They are caused by the hydrophobic properties of glass in contact with other materials or substances, as well as by residue from removed labels / stickers. Patterns appearing on the glass, made visible by condensation of water steam on the glass surface, are not a sign of any defect and do not affect the efficiency of the glass in mechanical or physiochemical terms.

Such deposits can be removed at the client's own risk with 3M™ Glass Polishing Compound 60150, however, in case of prolonged and intensive cleaning there is a risk of creating optical distortions.

It should be pointed out that the presence of condensation on glass inside the building indicates poor air ventilation or an inappropriate heating system being used which should be consulted with a chimney sweep to check building humidity levels.

The phenomenon of steam condensation appearing on external glass surfaces is a natural physical phenomenon and under no circumstances indicates a defect; instead, it confirms the high quality of glass units.

European Standard PN--EN 1279, especially part 1 – Appendix C states that external condensation does not constitute a defect on an insulating glass unit.