

VEKA PLC PROFILE CLIMATE ZONES



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HOW LONG WILL VEKA PVC-U PROFILES LAST ?

PVC-U window and door profiles can be expected to last more than 40 years, but the long term performance can be affected by environmental factors.

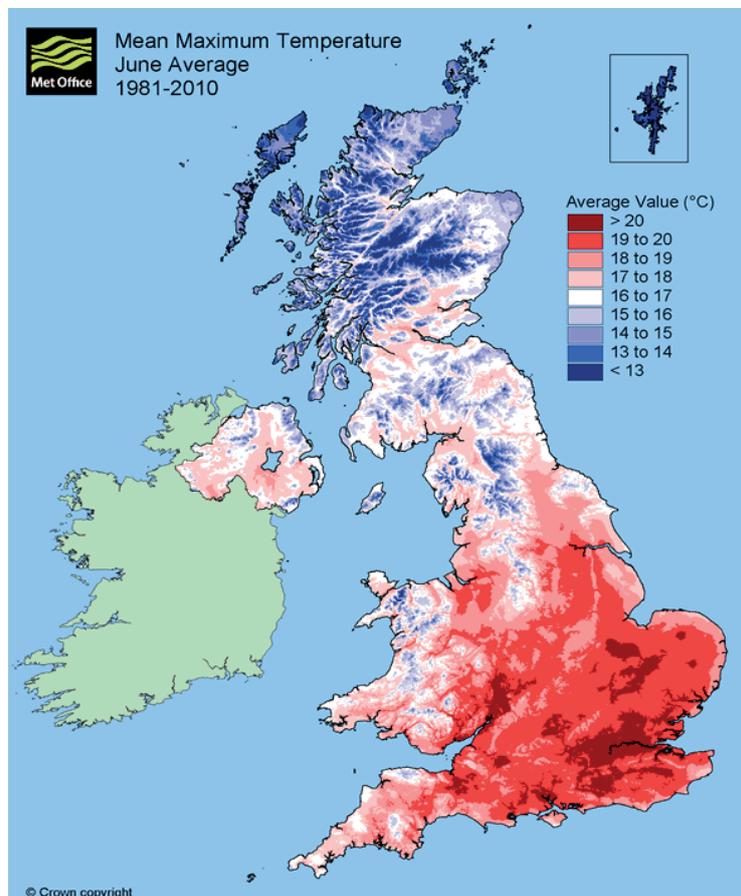
Environmental conditions result in the physical damage of the PVC-U profiles and occur by chemical reaction, the biggest threat being solar radiation mainly the UV content.

Photo degradation from solar radiation can cause surface damage and surface discolouration, spoiling the appearance of the profiles. Fortunately steps are taken to prevent premature UV damage to PVC-U profiles by the addition of UV stabilizers to the compound. The UV stabilizer used is titanium dioxide. The amount of titanium dioxide used depends on the climate zone and typically is between 4-15 parts per million.

CLIMATE ZONES - WHERE CAN WE USE VEKA PLC PROFILE ?

Within BS EN 12608 there are two types of climates one being moderate and the other severe climate. The UK falls under the moderate climate classification so this is what VEKA plc works within.

VEKA plc extrudes profile for use in moderate climate areas. Moderate climate is classed in EN 12608 as being $< 22^{\circ}\text{C}$ and $< 5\text{GJ}/\text{m}^2$. In the below map the UK has an average maximum temperature in June of under 22°C based on figures taken from the Met office so is well within the moderate climate classification.





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CAN VEKA PLC PROFILE BE USED OUTSIDE THE UK ?

As previously stated VEKA plc profile is made to suit the moderate climate classification stated in BS EN 12608. If the product that is being used is in a moderate climate and within Europe then VEKA's standard range of profiles can be used.

If you wish to use VEKA PLC profiles outside moderate climates and move into the severe climate classification then a different compound will need to be used to compensate for the extra solar radiation and heat in those areas. Severe climate is classed in EN 12608 as being $\geq 22^{\circ}\text{C}$ or $\geq 5 \text{ GJ/m}^2$.

VEKA plc can offer formulations to suit severe climates but this will be based on minimum order quantities and increased costs. VEKA can also make profile to suit severe climates outside of Europe, for further information please contact : salesenquiry@veka.com

HOW IS THE VEKA PLC PROFILE TESTED ?

To evaluate VEKA products withstand solar radiation two test processes are used which meet national and international standards.

VEKA test the compound and profiles by using artificial weathering samples in laboratories, this is based on natural weathering which has been done in areas with high levels of solar radiation and heat. Light cabinets are used to project high intensity, specific wavelength radiation at a PVC-U sample sections and are tested in accordance with EN 12608 to ensure they are UV stable. This accelerates the levels of solar radiation.

For more information please contact - www.vekauk.com
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