



**Engineering progress
Enhancing lives**

The use of reinforcement in UPVC windows and doors

A Quick Guide to the importance of using
REHAU Reinforcements.

**windows.rehau.uk
enquiries@rehau.com
Tel: 01989 762600**



Reinforcements are used in UPVC Windows and Doors for greater strength and for limiting profile expansion and contraction in different temperatures, especially when foiled.

REHAU windows and doors have been tested to BS 6375 and PAS 24, using REHAU specified steels which have a specific geometry, base material and Zinc 275 Corrosion protection:

- If alternatives are used to an approved design, the end window or door will not perform as expected, which has implications for safety, quality and the reputation of the fabricator
- Structural and wind load calculations support provided by REHAU are calculated using REHAU reinforcements, which need to be used otherwise they won't be valid
- Third party certifications, such as BSI Kitemark, CE Marking DoP, are also invalidated by the use of non-approved components
- To retain these certifications, fabricators need to retest the altered products (at their own expense), to prove their product still complies, which is time consuming and expensive.

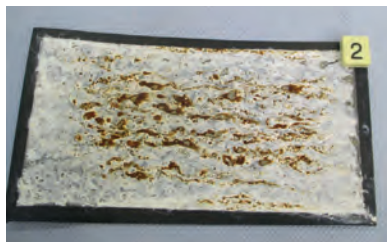
Steel vs a Substitute

- To maintain strength and structural performance, as well as aesthetics (no profile discolouration from red dust), REHAU reinforcements are manufactured in accordance with BS 7412 and use Z275 Zinc 20 micron coating, which gives a minimum of 10 years protection before any corrosion starts
- Other suppliers may use lower quality Steels with a Z140 Zinc 10 microns coating, or even less and corrosion signs could start to show through window profiles after just a few years of installation, as illustrated in the pictures below:

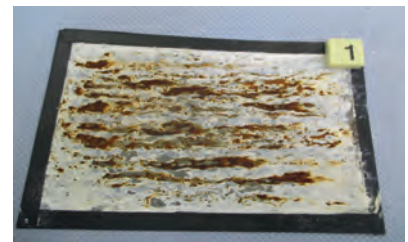
Z275



Z140



Z100



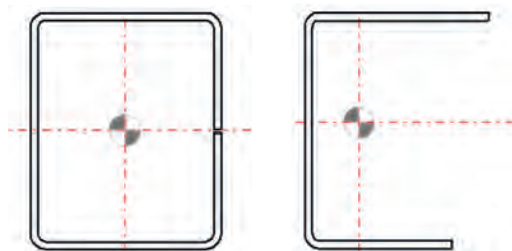
Geometry

- The use of REHAU specified steels, ensures the correct geometry of steel is used in profiles and provides guaranteed performance
- The implications of using the substitute steel below compared to REHAU's, is that they will give very different strength and performance levels:-



REHAU Steel

Substitute



In conclusion, maintaining the synergy between tested products and installed products, is the only way that we can assure customers that the products being fitted do what they say they will, in terms of performance and standards. Any changes or alternative components, introduce unnecessary risks and can damage the reputation of the supply chain.



Follow us
[@REHAUwindows](https://twitter.com/REHAUwindows)



Find us
[REHAU.UK](https://www.facebook.com/REHAU.UK)



Look for us
[REHAU_UK](https://www.instagram.com/REHAU_UK)



See us
[REHAU Ltd](https://www.youtube.com/REHAU Ltd)



Connect to us
[REHAU](https://www.linkedin.com/REHAU)

© REHAU Ltd
Hill Court, Walford,
Ross-on-Wye, HR9 5QN