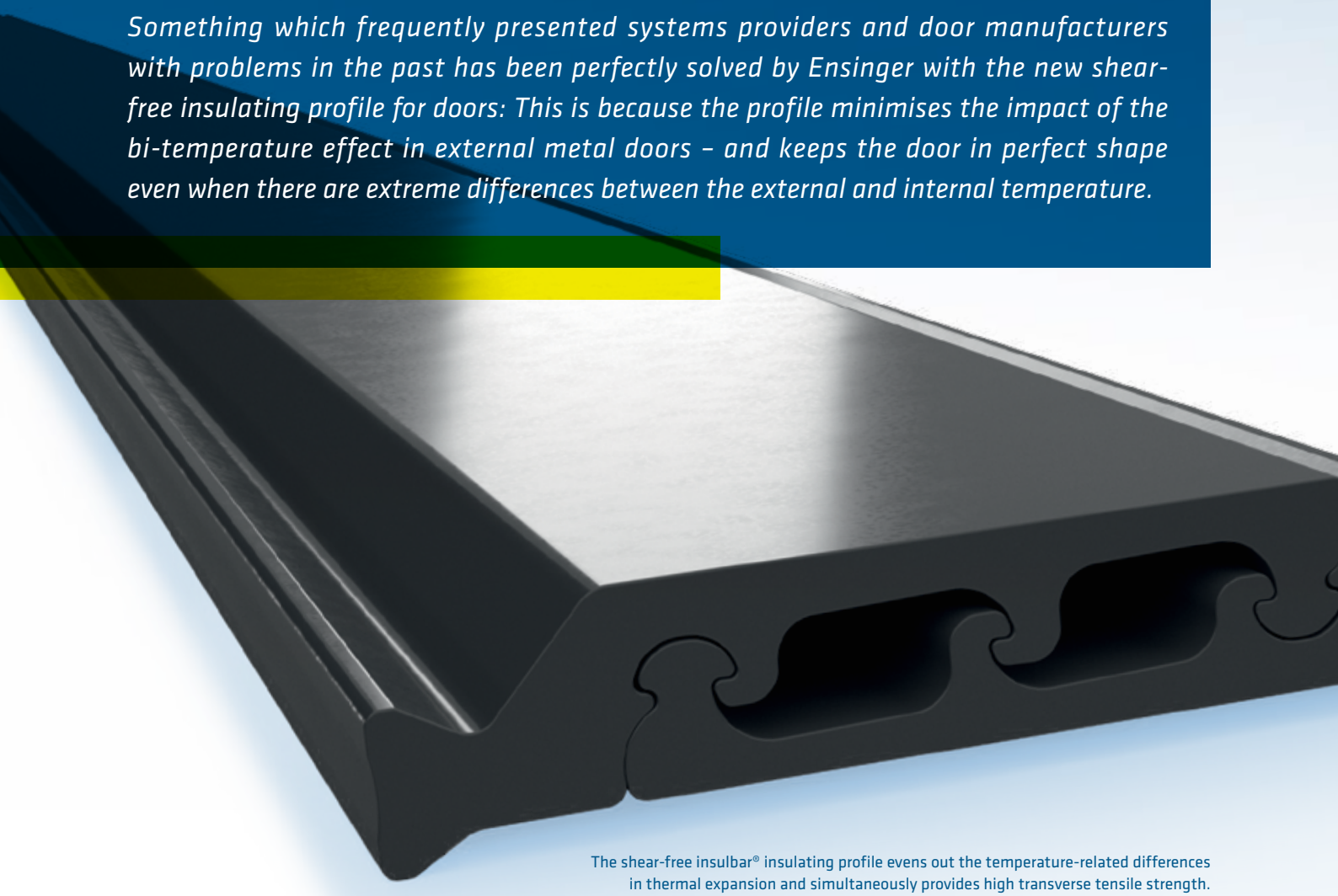
insulbar®

Ensinger

insulbar® shear-free insulating profile –
keeps metal doors in perfect shape

The solution for thermally separated doors

Something which frequently presented systems providers and door manufacturers with problems in the past has been perfectly solved by Ensinger with the new shear-free insulating profile for doors: This is because the profile minimises the impact of the bi-temperature effect in external metal doors – and keeps the door in perfect shape even when there are extreme differences between the external and internal temperature.



The shear-free insulbar® insulating profile evens out the temperature-related differences in thermal expansion and simultaneously provides high transverse tensile strength.

Deformed doors are a thing of the past

Aluminium doors can become significantly deformed, primarily when exposed to a lot of sun but also on particularly cold days. The outer aluminium shell expands or contracts, and the whole assembly bulges outwards or inwards. In extreme cases, the door can no longer be closed as a result. The insulbar® shear-free profile is now putting an end to that!

The future belongs to the shear-free insulating profile

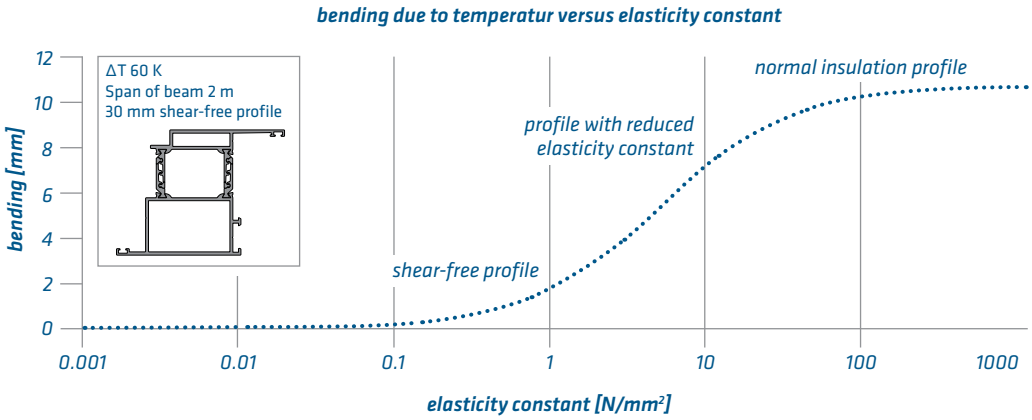
The new shear-free insulating bar (patent pending) consists of two intermeshing parts. With temperature-related, differing linear expansion of the inner and outer shells, the two parts move against one another. This generates a moveable, corrective insulating zone which minimises the bi-temperature effect and reduces deformation effectively.

Noticeably more effective than conventional solutions

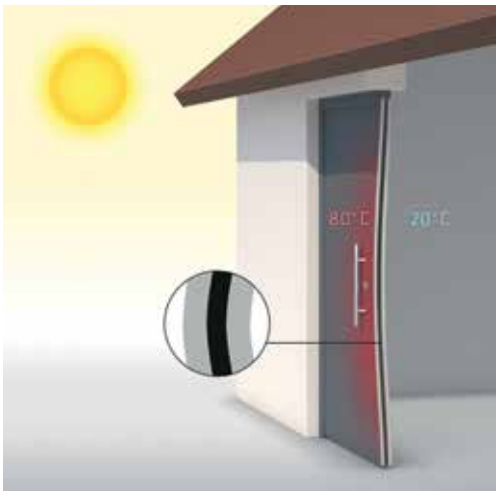
The shear-free insulating profile minimises the bi-temperature effect significantly better than the shear-weak profiles used hitherto:

→ thanks to minimum shear rigidity and low shear resistance

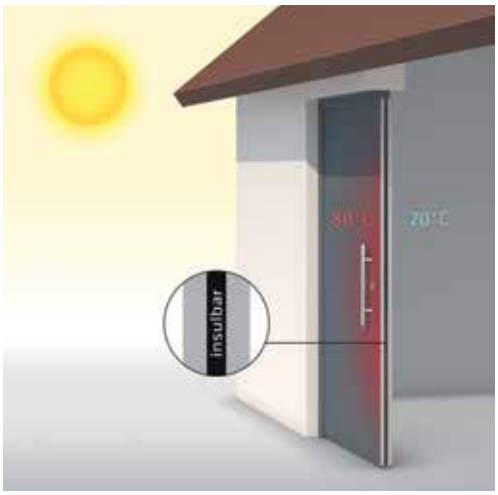
→ with high transverse tensile strength through optimised geometry



The shear rigidity of the shear-free insulbar® insulating bar is almost zero. Deformation of the assembly is thus minimised and the door keeps its shape.



Aluminium assembly with normal insulating profile: the large temperature difference causes the door to become deformed.



Aluminium assembly with shear-free insulbar® insulating profile: the flexible insulation zone evens out the differing linear expansion between the inner and outer shells effectively.

Flexible to use and easy to process

The shear-free insulating bar is available as standard in sizes of between 20 and 42 mm – if desired, also in customised sizes – and is already listed in both our standard range and the insulbar® finder under the section “Special applications”.

The shear-free insulbar® profile can be rolled up and laminated like a conventional insulating bar. It goes without saying that we are happy to support you with developing new door systems and can provide you with relevant samples.

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