



TRUSSED RAFTER ASSOCIATION

Information Sheet No. 9702 – Rev A

The use of metal nailplates in corrosive environments

Designing trussed rafters for use above swimming pools or in other chemically corrosive environments requires special consideration. Whether they can be used will depend on the chemicals and the effect that they have on both the steel of the nailplates and also to the timber.

Stainless Steel Nail Plates

Stainless steel connectors, although providing protection against rust, can suffer from 'stress corrosion' in chemically aggressive environments such as may exist in some enclosed swimming pools. In these situations the use of stainless steel nailplates alone will not usually be adequate and additional protection from the corrosive environment is required. Therefore whilst the TRA is not aware of any trusses made using stainless steel nailplates deteriorating in roofs over swimming pools, it no longer recommends the use of stainless steel nailplates (or other structural fixings) in these or other chlorine contaminated environments.

Galvanised Steel Nailplates

Galvanised Steel Nail Plates may continue to be used providing that the precautions detailed below are taken.

Precautions

- Stainless steel nail plates should not be used in chlorine contaminated environments
- The Building Designer must be responsible for satisfying him / herself as to the suitability of the method of construction and material specification bearing in mind the particular environment of the type of building.
- The Building Designer must make a full and proper assessment of the environment conditions within the roof space and incorporate in the specification, suitable measures to control that environment. Such measures might include the provision of an effective membrane at ceiling level to isolate the roof space, mechanical forced ventilation, protective coating to the nailplate and scheduled post-construction inspection and maintenance programmes.
- Neither the trussed rafter designer nor the trussed rafter system owner will accept responsibility for any claim arising from the Building Designer's failure to meet the requirements specified above.

Information Sheet No. 9702 – Rev A (05/2008)

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