

Guidance Note

Timber Decking Substructure Regulations and Preservative Treatment

July 2018

South African Wood Preservers Association



This Guidance Note addresses the importance of the use of properly preservative treated timber in the construction of substructures for timber decks and its compliance with the requirements as stipulated in the Building Regulations and relevant SANS Standards.

An important factor often overlooked when installing a deck, is the substructure on which the deck is being built. Most of the attention and thought generally goes into the upper decking material, and not into the loadbearing structure that is going to carry the load, and its demanding exposure to the elements. As a result there have been numerous failures due to unscrupulous contractors using material not capable of enduring the elements.

In most cases the material, e.g. the upright poles/posts planted into the ground are of acceptable preservative treated quality (H4 to H5), but the horizontal beams and bearers are often constructed of untreated or insufficiently (H2) preservative treated structural pine, whilst the upper decking itself consists of correctly preservative treated pine (H3) or hardwoods of varying natural durability. Any moisture, whether from precipitation or irrigation mechanisms will accumulate between the intersecting upper decking boards and load bearing beams, causing a moisture trap and forming the perfect environment for fungal decay. If the load bearing beams and bearers used in the substructure are not made up of at least H3 treated structural pine, the rate at which decay could set in and lead to failure of the deck structure may be rapid and could lead to injury for those walking on the deck.

Decks are regarded as loadbearing structures and buildings on which people walk and gather and as such it must be designed and constructed in accordance with the Building Regulations and relevant SANS Standards. *The Building Regulations, in specifically regulation A13 (1) (b) stipulates that “All timber used in the erection of a building shall be treated against termite and wood borer and fungal decay in accordance with the requirements of SANS 10005 and shall bear the product certification mark of a body certified by the South African Accreditation System”*

SANS 10005 in clause 12 addresses the use of preservative treated timber in specific areas of South Africa and the qualification the two main species, i.e. softwoods and hardwoods, of being adequate for its purpose as structural loadbearing components

used in a permanent building. In 12.2 it deals specifically with use of preservative treated softwoods (pine) mainly focusing on the use in the coastal municipal areas, but in the last paragraph clearly states; “Sawn timber used in the erection of an exposed loadbearing structure, i.e. the substructure of decks, shall be treated in accordance with 12.4 when used within the borders of South Africa.”

This reference specifically addresses the protection of all decking loadbearing substructures constructed of softwoods against fungal decay and subterranean termite attack, not just in the coastal municipal areas, but in all inland areas. This means that a deck substructure constructed with untreated or incorrectly treated timber does not comply with the Building Regulations.

Your attention is also directed to various guidance notes, including Understanding the Hazard Classes and Natural Durability of Wood, available on the SAWPA website

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For more information on preservative treated timber, contact SAWPA at 011 974 1061 or sawpa@global.co.za, or visit our website at www.sawpa.co.za