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SOUTH AFRICAN NATIONAL STANDARD

BARRIER PROTECTION SYSTEMS FOR PRESERVATIVE TREATED WOODEN POLES

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1 Dr Lategan Road Groenkloof ✉ Private Bag X191 Pretoria 0001
Tel: +27 12 428 7911 Fax: +27 12 344 1568
www.sabs.co.za

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Table of changes

Change No.	Date	Scope

Acknowledgement

The SABS Standards Division wishes to acknowledge the valuable assistance of all the members of the SANS: 1634 Working Group.

Foreword

This South African standard was approved by National Committee SABS TC 218, *Timber preservation*, in accordance with procedures of the SABS Standards Division, in compliance with Annex 3 of the WTO/TBT agreement.

This document was published in xxxx 2015.

Introduction

The use of barrier protection systems to augment preservative treated poles and posts is practised to improve the performance and service lives of those poles and posts. This standard sets out the required minimum performance standards for barrier protection systems.

Contents

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BARRIER PROTECTION SYSTEMS FOR PRESERVATIVE TREATED WOODEN POLES

1 Scope

This specification covers the minimum performance requirements for barrier protection systems used to augment the performance and service lives of preservative treated wooden poles, posts and piling intended for ground contact service conditions by either partially or wholly covering the butt end portion below the intended ground line.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

AWPA E1-97, *American Wood-Preservers' Association: 2005, Standard method for laboratory evaluation to determine resistance to subterranean termites.*

3 Definitions

For the purposes of this document, the following definitions apply.

3.1
augment
increase the durability of a preserved wooden pole

3.2
barrier protection system
a system that covers a pole surface partially or wholly below its intended ground line area, to enhance the durability and service life of a pole.

3.3
butt end portion
the in-ground portion of a wooden pole

3.4
competent person
a person with sufficient training, knowledge and experience in the wooden pole preservation and inspection discipline

3.5
pole
wooden pole, post or piling

4 Minimum performance requirements

4.1 General

The barrier protection system shall have been tested and proven effective by qualified independent competent persons that are specialised in both wood biodeterioration and treated pole performance as specified below.

4.2 Impact resistance

The barrier protection material shall be tested as follows:

Randomly select three samples of the barrier protection material and prepare a square test sample measuring 150 +/-5mm x 150 +/-5mm from each.

Place a test sample on a smooth rigid steel surface and exert an impact energy of 6 Joules (this needs to be verified with actual measurements) on the approximate centre point of the square by means of a free-falling, 50 mm diameter steel ball. Repeat with the remaining two samples.

Examine each sample against the light to determine if the impact punctured the barrier protection material.

The barrier protection shall exhibit no holes.

4.3 Termite resistance

Testing shall be in accordance with AWPA E1-97

4.4 In-field performance

The barrier protection system shall be applied, in accordance with the manufacturer's instructions, to preservative treated wooden poles for the relevant hazard classes and covering the diameter classes as used by the end-user.

The test samples shall be exposed for a minimum of five years in the relevant environment, after which period no biodeterioration shall be detected in the protected zone of the pole.

The barrier protection system shall be evaluated for any form of deterioration detrimental to its performance.

Annex A
(normative)

Notes to purchasers

The following requirements shall be specified in tender invitations and in each order or contract:

a) type of product

b) pole species

c) preservative treatment of the pole

d) pole top-end diameter

e) length of poles

f) planting depth of the poles.