

SPECIFICATION FOR GRASS

SANS 10407:2004 SOUTH AFRICAN NATIONAL STANDARD Thatched Roof Construction Edition 1

Pages 4-5 (SANS 10407:2004 (Thatched Roof Construction))

4.1.1 Thatching Grass and Reeds

4.1.1.1 General

Thatching materials shall comprise grass or reeds of a type that has a history of successful use in a locality as a roof covering.

4.1.1.2 Thatching Grass

4.1.1.2.1 Common or fine thatching grass (*Hyparrhenia Hirta* and *Hyparrhenia Phillependula*) for use shall:

- a) have a cut length of not less than 0,8 m;
- b) ***have a minimum diameter and maximum diameter at the butt end of 1,2 mm and 2,5 mm, respectively**
- c) be acceptably straight (cut above the first node);
- d) be free of loose material;
- e) be workable;
- f) **not be cut in the growing season;**
- g) **be fully grown and matured; and**
- h) ***be free of seed when cut.**

4.1.1.2.2 Yellow and red (Tamboekie) or coarse thatching grass (*Hyperthelia Dissoluta*) shall meet the requirements of 4.1.1.2.1 (b) to 4.1.1.2 (h) (inclusive) as well as the following requirement.

The cut length shall not be less than 1,2 m.

COMMON THATCHING GRASS IN SOUTH AFRICA

Page 2-3 from “A Guide to Good Thatching Practice

2. Materials

The most commonly used South African grasses with their main geographical locations. The type of grass known as Tamboekie grass (Tamboekie) is often used in the rural areas for thatching, but there are coarse varieties, with stalks thicker than 4 mm, that are not considered suitable for thatching.

Natal thatching grass has a finer texture, when laid, than the grass found in Mpumalanga and the Northern Province, and is often preferred for this reason. The stalks of thatching grass are normally hollow and about 3 mm thick. Cape dekriet stalks, however, are solid and about 3-4 mm thick. The quality of the material improves with cultivation and regular cutting. A question often asked is whether the quality of the thatch is dependent on the way in which the grass is harvested (cut), since some thatchers consider the quality of material cut by hand (with a sickle) to be superior to that cut with a machine. The answer is no. The quality of the thatch produced is the same; however, hand-cutting will produce only about 50 to 100 bundles a day, whereas a mechanical cutter and binder will process about 6 000 bundles a day.

Thatching grass is **usually cut from mid-winter to August, after growth has stopped and the first hard frost has killed the leaves.** In areas where no frost occurs, the **only measure for determining whether the grass is ripe and ready for cutting is whether the grass plumes still contain any seeds.** Should this not be taken into account (still lots of seeds) and the grass be cut too early, this will impact not only on the quality, but also the grass yield for the following seasons. At the end of the cutting season the remaining stubble and undergrowth must be removed, either by grazing or by burning.

3.1 Cleaning and bundling

After the grass has been cut and loosely bundled, each bundle is shaken vigorously to dislodge all loose material. The bundles are then cleaned by passing a sickle through them, working from top to bottom. This removes the remaining leaf growth from the lower two-thirds of the stalks.

The grass is then regrouped into bundles about one to 1,5 m long and between 75 and 100 mm in diameter. These bundles are each tied with a thong or twisted grass or with twine and packed in heaps (pyramid shape) about 2 m high and 2,5 to 3 m in diameter at the base.

SANS 10407:2004 SPECIFICATION FOR BUNDLES

Page 6

4.1.1.5 Bundles

The diameter of bundles should meet the provisions of table 1.

Table 1 – Bundle provisions at time of construction

Grass Species	Diameter of the bundle mm	Approximate mass of the bundle kg	Thickness of thatch layer mm	Minimum mass of thatch layer per m ² kg
Common or fine thatching grass (Hyparrhenia Hirta and Hyparrhenia Phillependula) Minimum design mass of thatch layer : 90 kg	125	0,8 to 0,9	175	45
Yellow and red (Tamboekie) or coarse thatching grass (Hyperthelia Dissoluta) Minimum design mass of thatch layer : 105 kg	125	1,3 to 1,5	200	55

PHOTO GALERY

Yellow Thatching Grass (Tamboekie)

Hyperthelia Dissoluta



Description

Tall, tufted perennial with 12 mm leaf blades. Length up to 3 m. Inflorescence are purplish-red with yellow awns. Leaf sheath has prominent auricles, with unbranched culms.

Habitat

Yellow Thatching Grass usually grows in sandy soil in bushveld with a rainfall in excess of 600 mm per annum. It is also found in open grassland and sometimes in other soil types. Often abundant along roadsides. Can be found grow in gin the Northern Province and the Kruger National Park.

Geographical location

Limpopo Province, Northern KwaZulu-Natal, Swaziland

Flowers

December - June

Common Thatching Grass *Hyparrhenia Hirta*



Discription

Tufted perennial up to 90 cm high. Panicle loose, rather scanty; spatheoles 5 cm long with terminally exerted white or grey villous recemes, upper raceme base glabrous, fine, 4mm long; pedicelled hairy spikelets 5-6 cm long. There are ten to 14 awns per raceme pair compared with two to six for *H.filipendula*

Geographical location

South Africa (widespread)
Natal Berg area, in abundance



Young growth



Hairy Blue Thatching grass / Silky Thatching Grass
Hyparrhenia Dregeana



Description

A robust perennial rhizomatous and tufted grass that grows to a height of 1500-2000 mm tall. Leaf blades are up to 600 mm long and 3-8 mm wide. The ligule is an unfringed membrane. Inflorescence is a leafy panicle with capillary branchlets and a complex of partial inflorescences and intervening foliar organs. The spikelets are sessile 4-5 mm long and densely hairy. Raceme pairs have 10-25 awns that are 8-20 mm long. The raceme bases are subequal, flattened and short-appendaged. The pedicellate spikelets are villous to hispidulous, rarely glabrous. *H. dregeana* is related to *H. collina*, *H. tamba* and *H. rudis*, from which it can be distinguished by its densely tufted habit and very many short awns.

Geographical location

Natal Midlands and Berg Area



Hyparrhenia Dregeana

Fine Thatching Grass

Hyparrhenia Filipendula



Description

Length up to 2 m tall. Fine Thatching Grass is a perennial grass, long, thin, brown awns. Racemes are short and are borne in pairs; they are light in colour and is usually taller than surrounding grasses.

Habitat

Fine thatching grass is mostly found in bushveld regions, but also in open grassland. It is found in all types of soil. In areas with a low rainfall it grows in damp places. It is often found on roadsides.

Geographical location

KwaZulu-Natal, Zululand and coastal regions, Gauteng and Mpumalanga

Flowers

November - April