

REG No: 93/29837/23 VAT No: 4200155465 Polymer Science Building

Polymer Science Building
De Beer Street, STELLENBOSCH 7600
www.roedigeragencies.co.za

ANALYTICAL LABORATORY

PO Box 3202 MATIELAND 7602 Tel: +27 21 887 0010 Fax: +27 21 886 4731 Cell: 083 250 9281

26 June 2015

Michael Oosthuizen Clariant Southern Africa (Pty) Ltd. PO Box 2228 2125 RANDBURG

Dear Mr. Oosthuizen

REF no.: 2306CLA1/1

Palm leaves were sent to the analytical laboratory of Roediger Agencies cc for analysis to determine the burn rate.

The samples were labelled:

1. Light brown coloured.

Standard test procedures and requirements UL94HB

Specimen:

5" x 12" x thickness (typically thickness is 1/16".1/8".1/4")

Procedure

Total of 10 specimens (2 sets) are tested per thickness. Five of each thickness are tested after conditioning 48 hours at 23 °C and 50% RH. Five of each thickness are tested after conditioning for 7 days at 70 °C. Specimen is mounted with long axis vertical. Specimen is supported such that its lower end is 3/8' above Bunsen burner tube. Blue 3/4" high flame is applied to the centre of the lower edge of specimen for 10 seconds. If burning ceases within 30 seconds, flame is re-applied for an additional 10 seconds. If specimen drips particles, these shall be allowed to fall onto a layer of untreated surgical cotton placed 12" below the specimen.

Classification requirements for 94HB

- **A.** Not have a burning rate exceeding 1.5" per minute over a 3.0" span for specimen;
- **B.** Not have a burning rate exceeding 3.0" per minute over a 3.0" span for specimen having a thickness less than 0.120", or
- **C.** Cease to burn before the flame reaches the 4.0" mark.

A horizontal burn rate was evaluated and results tabulated below.

Burn distance (mm)	Sample 1 (light brown)
	Burn rate (sec)
25	18
25-50	25
50-75	37
75-100	40
Average / 25 mm	30
Rating UL94HB	В

The sample passes the UL94 test with a B rating.

Yours faithfully,

Dr. AHA Roediger.

Albudiza.