

# APL Applied Physics Laboratory

ACCREDITED LABORATORY NUMBER 206

International Accreditation New Zealand

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## TEST REPORT

Reference Number 06193

Page 1 of 2.

### EARLY FIRE HAZARD PROPERTIES OF TCL POLYNUM RANGE THERMAL INSULATION

#### MATERIAL

TCL *POLYNUM RANGE* THERMAL INSULATION being a multi-purpose thermal insulation material range having common construction features consisting of a core of low density polyethylene formed into closed cell bubbles, with pure aluminium reflective foil faces, is manufactured by Polyon Barkai Industries (1993) Ltd, Kibbutz Barkai, M.P. Menashe, 37860, ISRAEL.

The material, which is available in a range of internal polyethylene bubble configurations, was supplied by the client Polyon Barkai Industries (1993) Ltd, through agent TCL Marketing Ltd, P O Box 11-127, Auckland 1131, New Zealand. A range of bubble configurations was included in the tests and all yielded similar results within the limits prescribed in the Standard Test Method.

#### TEST METHOD

Australian Standard 1530, Methods for fire tests on building materials, components and structures. AS 1530 Part 3, 1999, "Simultaneous determination of ignitability, flame propagation, heat release and smoke release."

The material was assigned the Laboratory Numbers 9052, 9053, and 9064, and the tests were conducted on 30 September and 17 November 2005.

The specimens were fixed to the support frames using a perimeter clamping ring.

#### RESULTS

The following results were obtained on six specimens tested.

Mean ignition time (seconds): 0

Mean flame propagation time (seconds): 0

Mean heat release integral (kJ/m<sup>2</sup>): 0

Mean smoke release (Density/m): 0.00581

Mean smoke release (log<sub>10</sub> D): -2.23582

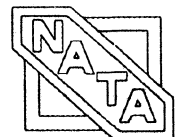
Standard error (log<sub>10</sub>D): 0.10073

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*All tests reported herein have been performed in accordance with the Laboratory's scope of accreditation*

International Accreditation New Zealand (IANZ) has a mutual recognition agreement with the National Association of Testing Authorities, Australia (NATA) such that both organisations recognise accreditations by IANZ and NATA as equivalent.

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EARLY FIRE HAZARD PROPERTIES OF  
TCL *POLYNUM RANGE* THERMAL INSULATION

From the results the following indices were determined:

IGNITABILITY INDEX (Range 0 - 20)	0
SPREAD OF FLAME INDEX (Range 0 - 10)	0
HEAT EVOLVED INDEX (Range 0 -10)	0
SMOKE DEVELOPED INDEX (Range 0 - 10)	0

Statement from the Standard.

*The results of this fire test may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.*

Statement from the Laboratory.

*This statement appears on all of the Laboratory's test reports.*

*The Laboratory's experience is that the results of this fire test can be significantly modified by the detail of the specimens presented for testing.*

*The nature of substrate materials for example (where present) can significantly modify the test results. There were no substrate materials present in the case of these specimens.*

*The results reported apply to the material as described herein, and users of this test report are recommended to take particular note of the material description on page 1.*

E. R. Weaver.



12 February 2007



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