The Building Test Centre
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Report Number **BTC 18176F**

A REACTION TO FIRE TEST REPORT COVERING THE IGNITABILITY PERFORMANCE OF CONTEGO HS INTUMESCENT FIRE BARRIER PAINT (HIGH SOLIDS VERSION), WHEN SUBJECTED TO DIRECT IMPINGEMENT OF FLAME, IN ACCORDANCE WITH EN ISO 11925-2:2010.

Test Date: 1st May 2013

www.btconline.co.uk

Customer: **Contego International, Inc.**
PO Box 684
Westfield
Indiana 46074

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The Building Test Centre
Fire Acoustics Structures

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1. FOREWORD

This test report details the ignitability performance of Contego HS Intumescent Fire Barrier Paint (High Solids Version) when subjected to direct impingement of flame, in accordance with EN ISO 11925-2: 2010.

The test sponsor was JPQ International Consultants Ltd.

Contego International, Inc. manufactured and Biokjemi Norge as Norsk Trepleie supplied the products used to construct the test specimens. The products were received for testing by the Building Test Centre in April 2013. The specimens were prepared and inspected prior to testing by the Building Test Centre in April 2013.

The Building Test Centre played no role in the design or selection of the materials comprising the test specimens.

2. REPORT AUTHORISATION

Report Author	Authorised by
Paul Davies MEng. (Hons.) *Scientist*	**Mark Shortland** BSc. (Hons.) *Scientist*

Report date: 2nd May 2013

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3. TEST MATERIALS

Norbord OSB Sheathing Board

Nominally 12mm thick Norbord OSB Sheathing Board supplied by Biokjemi Norge as Norsk Trepleie pre-painted with Contego HS Intumescent Fire Barrier Paint (High Solids Version).

Measured thickness	12.307 mm
Measured density	671.3 kg/m³

The thickness and density were calculated using a sample without paint applied of sufficient size to be representative of the product without paint.

Contego HS Intumescent Fire Barrier Paint (High Solids Version)

The test material was supplied pre-painted onto a timber OSB sheathing board.

Measured thickness	0.491 mm

The thickness of the paint was calculated using the test specimens.

Where measurements could not be taken then weight and dimensions were provided by the customer or the manufacturer e.g. from material labelling. Material information was recorded according to procedure MAT/1.

4. TEST PROCEDURE

The tests were conducted in accordance with EN ISO 11925-2:2010.

The test procedure used was EN/ISO/11925-2, issue 2.

Clause 5.2 of EN ISO 11925-2: 2010 states the dimensions of the test specimens shall be 250 +2 / -2 mm long by 90 +2 / -2 mm wide. Specimens of normal thickness 60 mm or less should be tested using their full thickness, whereas specimens of normal thickness greater than 60 mm shall be reduced to a thickness by cutting away the unexposed surface.

The test specimens were prepared from samples that were sufficiently large to be representative of the products. Six specimens were cut from the board, three in the lengthwise direction and three in the crosswise direction.

The test specimens were conditioned at 23 ± 2 ºC and 50 ± 5 % relative humidity prior to testing until constant mass was achieved, according to EN 13238: 2001.

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The gas pressure, chimney airflow velocity, laboratory temperature and relative humidity were measured before starting the test to ensure they complied with the limits stated in EN ISO 11925-2: 2010.

Chimney airflow velocity reading	0.71m/s
Temperature	18.5°C
Relative humidity	38.9%

The test specimens were removed from the conditioning environment and tested within 30 minutes of their removal.

The specimens were clamped so that one end and both sides of the specimen were covered by the holder frame and the exposed end was 30 mm from the end of the frame. The specimens were placed, individually, into the combustion chamber.

The distance of the burner from the specimen was adjusted to 16 mm using a spacer. The specimens were aligned so the flame was applied on the centre line of the specimen, 40 mm above the bottom edge.

Two pieces of conditioned filter paper were position in an aluminium tray beneath the specimen, not more than 3 minutes before the start of the test. The filter paper was not removed from the desiccator more than 3 minutes before the start of the test.

The burner was ignited in the vertical position and the fame was allowed to stabilise. The burner valve was adjusted to give a flame height of 20 mm (± 0.1 mm).

The flame application time was 30 seconds; the total test duration was 60 seconds from the time at which the flame was first applied.

The product was tested applied to a timber OSB Sheathing Board.

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5. TEST RESULTS

Specimen No.→	1L	2L	3L	4C	5C	6C
Specimen ignition	N	N	N	N	N	N
Time to 150mm	-	-	-	-	-	-
Filter paper ignition	N	N	N	N	N	N
Observations:	Charring of the paper face occurred 22 mm – 28 mm above the flame application point. Orientation appeared to have no effect on flame spread.					

6. LIMITATIONS

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over five years old should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

The test results relate only to the behaviour of the test specimens of a product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

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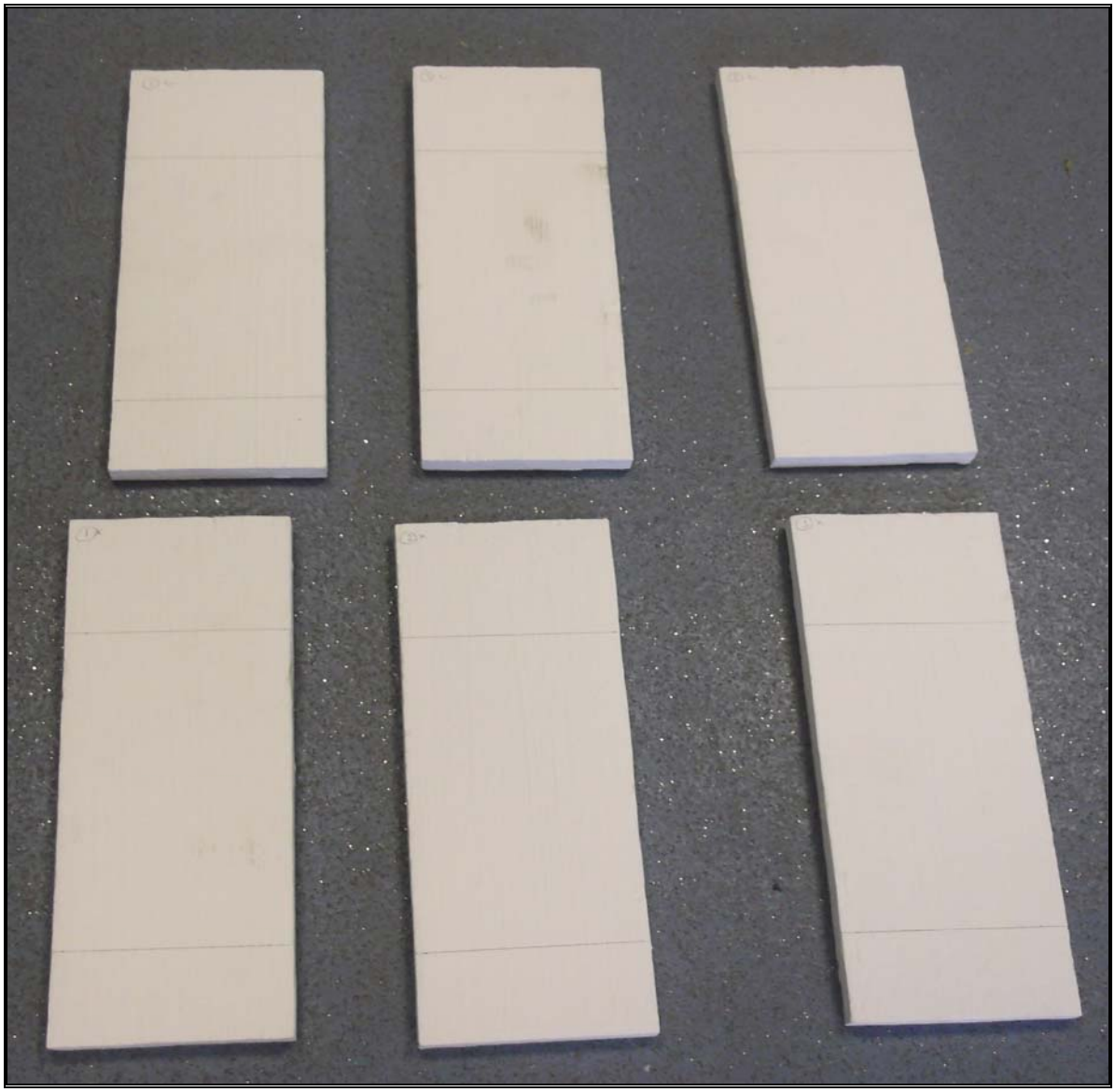
7. PHOTOGRAPHS

Specimen samples before testing



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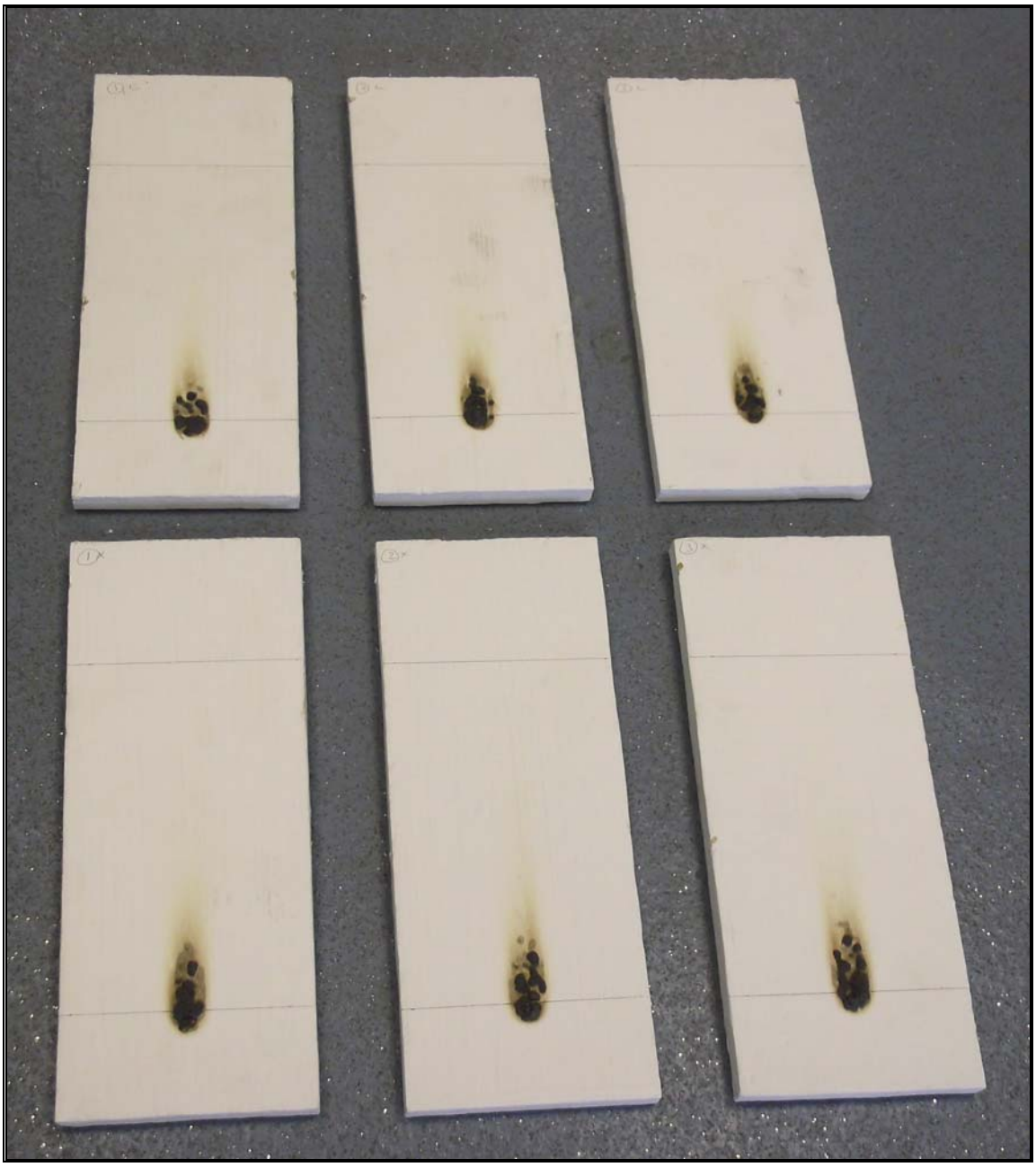
Specimen samples after testing



Customer**: Contego International, Inc**

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