

Ljubljana, March 17<sup>th</sup>, 2004

## TRANSLATION OF TEST REPORT

No. P 220/04-530-1

Test methods for external fire exposure to roofs  
according to SIST ENV 1187 – test method 1for product  
**GERARD**

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<b>Applicant:</b>	AHI Roofing Ltd, 90-104 Felton Mathew ave, Glen Innes, Auckland, NZ
<b>Order:</b>	correspondence dated 23 <sup>rd</sup> January 2004

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**Responsible investigator:**

Marijan Kavčič

**Head of laboratory:**

Milan Hajdukovič, B.Sc.

za: **Director:**

Prof. Miha Tomaževič, Ph.D.




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Approved laboratory by Ministry of Science and Technology (Charter of Accreditation No. I-013; Decree No. 619-50/99-5)

Other accreditations: BUREAU VERITAS (Certificate of Recognition No. SMS.II/RJK/2900/I A0)

CROATIAN REGISTER OF SHIPPING (Certificate for Approval of Testing Institution No. 01-00306-0012652)

Member of  - European Group of Official Laboratories for Fire Testing

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The test results relate only to the tested sample. Test report may be reproduced only as a whole. Complaints regarding the content of this report will only be considered if received within 15 days of the date of issue of the report. Number of pages: 6, number of enclosures: 1

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Obr. P.S. 12-001-01/2

1. **PRODUCT:** Roof covering **GERARD**
2. **MANUFACTURER:** AHI Roofing Ltd, 90-104 Felton Mathew ave, Glen Innes, Auckland, New Zealand
3. **SAMPLING:** Date: 8<sup>th</sup> August 2002 – sampled and delivered by representative of applicant  
Number of specimen: 5 specimen of dimensions 86 cm by 184 cm  
Marking of the specimen: sign on the underside of boards:  
L4 R590 1607030400 Made in NZ and  
ZINZALUME STEEL Made by NZ Steel  
Specimen No.: P 04/009
4. **DESCRIPTION OF THE PRODUCT:**  
Applicant constructed the specimen according to direction for laying a roof covering Gerard. Boards are nailed onto the lathes (cross-section of 50 × 40 mm).  
Boards are made of sheet-steel covered with zinc aluminium and thin layer of acrylic rosin. On the surface of the boards there are layers: base acrylic layer, small stone pieces and acrylic glaze.
5. **TEST METHOD:** SIST ENV 1187: test method 1
6. **CONDITIONING OF SPECIMEN:**  
Before test the specimen was conditioned at temperature of 23°C and relative humidity of 50 %.  
Humidity of wood wool: 8 %
7. **DATE OF TEST:** 25<sup>th</sup> April 2004
8. **AMBIENT TEMPERATURE IN THE LABORATORY:** 17 °C
9. **ROOF PITCH:** 45°
10. **OBSERVATIONS DURING THE TEST:**  
See Table on next page.

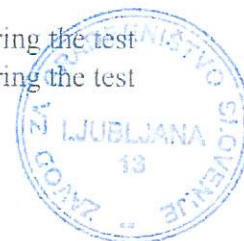


Specimen No.:		1	2	3	4	5
position of the brand:		vert. and hor. joint	vert. and hor. joint	vert. and hor. joint	no joints	
FIRE SPREAD	Upwards fire spread time [min:sec]	10 cm	0:40	1:05	0:30	no
		30 cm	no	no	no	no
		50 cm	no	no	no	no
		70 cm	no	no	no	no
		cm/sec	12/45	15/243	12/32	8/34
	Downwards fire spread time [min:sec]	10 cm	no	no	no	no
		30 cm	no	no	no	no
		50 cm	no	no	no	no
		70 cm	no	no	no	no
		cm/sec	6/45	5/243	4/32	6/34
Lateral flame spread to the edge	[min:sec]	no	no	no	no	
Falling materials	(yes/no)	no	no	no	no	
Damaged area	[m <sup>2</sup> ]	0.1*	0.1	0.1	0.1	
FIRE PENETRATION	Falling of flaming materials from the underside	[min:sec]	no	no	no	no
	Openings formed	[min:sec]	no	no	no	no
	Fire penetration	[min:sec]	no	no	no	no
DAMAGE	Smouldering of any layer		no	no	no	no
	Extent of internal damage		no	no	no	no
	Max. length of burnt material	[cm]	2	2	2	2
	Damaged area	[m <sup>2</sup> ]	0.1	0.1	0.1	0.1
Time of test termination	[min]	15	15	15	15	
Time of opening of the test specimen	[min]	15	15	15	15	
Range of roof pitches for which the report is valid		≥20°	≥20°	≥20°	≥20°	

\* combustible component of surface layer burnt

## 11. ENCLOSURES:

- Photographs: 1 .... wood wool as source of ignition at 45° pitch during the test  
 2 .... wood wool as source of ignition at 45° pitch during the test  
 3 .... burning wood wool at 45° pitch  
 4 .... almost all wood wool burnt  
 5 .... roof covering after the test – surface  
 6 .... roof covering after the test – underside



Report was prepared by: Milan Hajduković, B. Sc.

Za: *Dimitar Juv*

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