

# Test Result Report

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to: ThermBlock Japan Co.,Ltd

**General incorporated association**

Japan Paint Testing Association Tokyo  
Miyamae 636-3 Fujisawa city Kanagawa Japan

Request No. 150694

Unit Manager	In charge
Nakayama	Hirukawa

Date of Report: June 02, 2015

Name of product	ThermBlock		Date of application	Jan 16,2015
			Test piece date	Oct 16, 2014
			Location of Test	Submitted
Manufacturer	Thermblock Japan Co.,Ltd		Number of test product	1
<b>Test item</b>	<b>Result</b>		<b>Method of Test</b>	
Dry time	23°C	Half Dry	2.5 hour	JIS K 5600 -1-1:1999
		Full Dry	24hour	
	5°C	Half Dry	6hour	
		Full Dry	24hour	
Crack during primary dry	None-crack		JIS A 6909:2014	
Solar reflectance %	Full spectrum (300 ~ 2500 nm)		84.9	JIS K 5602: 2008 JIS Z 8722: 2009 JIS Z 8781-4: 2013 JIS Z 8721:1993
	Ultraviolet A & visible light (300 ~ 780 nm)		83.9	
	Near infrared rays (780 ~ 2500 nm)		86.2	
Collar of test piece face	L *		94.6	
	a *		-0.8	
	b *		3.5	

Test item	Result		Method of Test
Flex resistance	None- Crack		JIS K 5600 - 5 - 1:1999
Impact resistance	None- Crack, None-separation by impact		JIS K 5600 - 5 - 3:1999
Abrasion resistance	No part of exposed base metal		JIS H 8682 - 3 :2013
Oxygen index	29.1		JIS K 7201 - 2: 2007
Water vapor permeability  g/m <sup>2</sup> ·24h	n1	44.5	JIS Z 0208 : 1976
	n2	45.9	
	n3	44.8	
	average	45.1	
Water resistance	None- crack, bulging ,separation, fading, lowering gloss		JIS K 5600 - 6 - 1: 1999
Moisture resistance	None- crack, bulging ,separation, fading, lowering gloss		JIS K 5600 - 7 - 2: 1999

Test item	Result		Method of Test
Acid resistance	None- crack, bulging ,separation, fading, lowering gloss		JIS K 5600 - 6 - 1: 1999
accelerated weathering resistance	n1	None- crack, bulging , separation, fading,	JIS K 5600 - 7 - 7: 2008  Testing time: 2,000hours
	n2	Ditto	
	n3	Ditto	

# Test Result Report

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to: ThermBlock Japan Co.,Ltd

**General incorporated association**

Japan Paint Testing Association Tokyo  
Miyamae 636-3 Fujisawa city Kanagawa Japan

Request No. 144306

Unit Manager	In charge
Nakayama	Hirukawa

Date of Report: May 14, 2015

Name of product	ThermBlock		Date of application	Apr 02, 2015
			Test piece date	
			Location of Test	Submitted
Manufacturer	Thermblock Japan Co.,Ltd		Number of test product	1
<b>Test item</b>	<b>Result</b>		<b>Method of Test</b>	
Adhesiveness (pull-off-method)	Blasted steel plate	n1	adhesiveness: 4.2 Mpa breakage state 100 %B	JIS K 5600-5-7:2014
		n2	adhesiveness: 5.0 Mpa breakage state 100 %B	
		n3	adhesiveness: 4.5 Mpa breakage state 100 %B	
		Average	adhesiveness: 4.6 Mpa	
	Mortar plate	n1	adhesiveness: 1.0 Mpa breakage state 30 % A/B 70%B	
		n2	adhesiveness: 0.7 Mpa breakage state 100 % A/B	
		n3	adhesiveness: 1.8 Mpa breakage state 50 %A/B 50%B	
		Average	adhesiveness: 1.2 Mpa	

Test item	Result		Method of Test
Contamination resistance	n1	72%	JIS K 5400 : 1990 JIS Z 8722: 2009
Alkali resistance	n1	None- crack, bulging ,separation, fading,	JIS K 5600 – 6– 1: 1999
	n2	Ditto	
	n3	Ditto	
Salt spray test	n1	None- crack, bulging ,separation, rust	JIS K 5600 – 7 – 1: 1999
	n2	Ditto	
	n3	Ditto	
<p>Note</p> <p>Shape of testing plate            adhesive : 150 x 70 x 3 mm ( base: blasted steel plate), 70 x 70 x 20mm ( base: mortar plate)            Contamination resistance 150 x 70 x 0.8mm (base: steel plate)            alkali resistance 150 x 70 x 0.8mm (base: steel plate)            salt water spray 150 x 70 x 0.8mm (base: steel plate)</p>			

Test item		Result				Method pf Test	
Pyrogenous Test							
Name of Product		ThermBlock					
Test piece	No. of Test piece	No.1	No.2	No.3		-	
	Base material	Plaster board				-	
	Area of test piece (m2)	0.00884				-	
Condition of heating	Radiant energy (kw/m2)	50.0				-	
	Time of heating (minutes)	20.0				none-combustible material (20 minutes)	
						semi-none-combustible material (10 minutes)	
flame retardant material (5 minutes)							
Result of Test	Date of Test	April 16.2015				Criterion of fire performance required to material	
	Chart of Test	Fig.1	Fig.2	Fig.3		-	
	Total heat generation	3.5	5.2	4.8		Total heat generation don't over 8kw/m2	
	time of over 200kw/m2 (second)	0	0	0		Condition over 200°C don't continue more than 10 second	
	Harmful deformation, melting, crack	No- crack or through hole reached to back face				No- crack or through hole reached to back face	
<p>Note</p> <p>Test equipment: Toyoseikiseisakujo Co.,Ltd</p> <p>Shape of test piece: 100 x 100 x 12.5cm</p>							

Request No.144306

**Pyrogenous test chart**

Product name: Thermblock

Manufacturer: Thermblock Japan

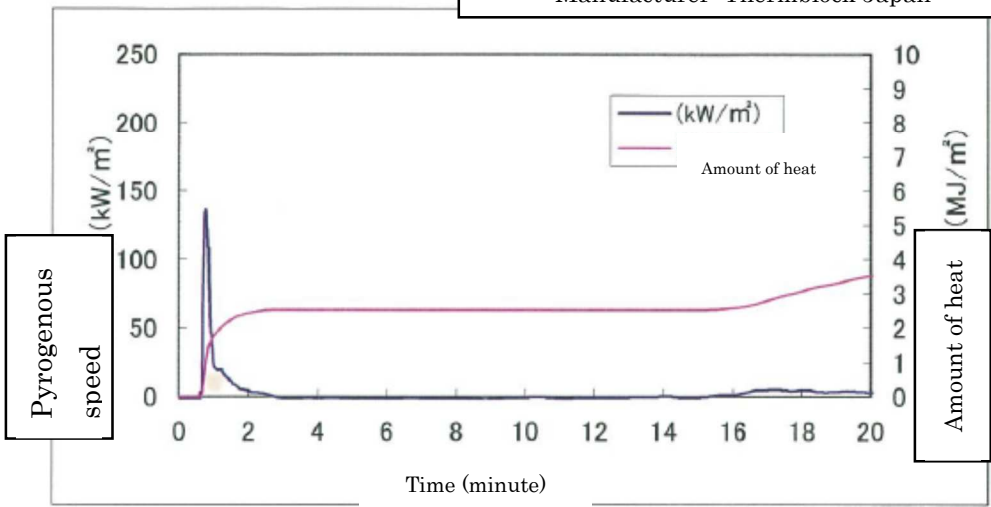


Fig.1 Test piece No.1

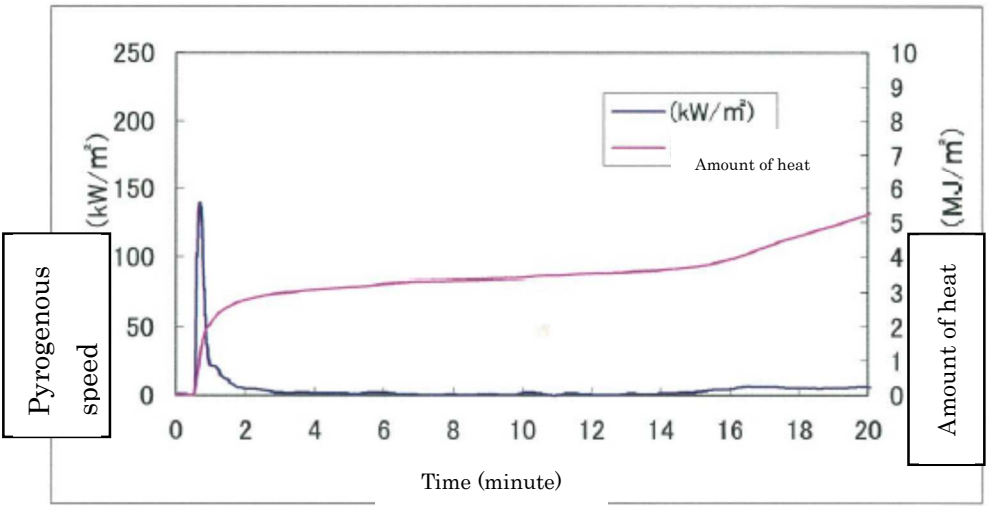


Fig.2 Test piece No.2

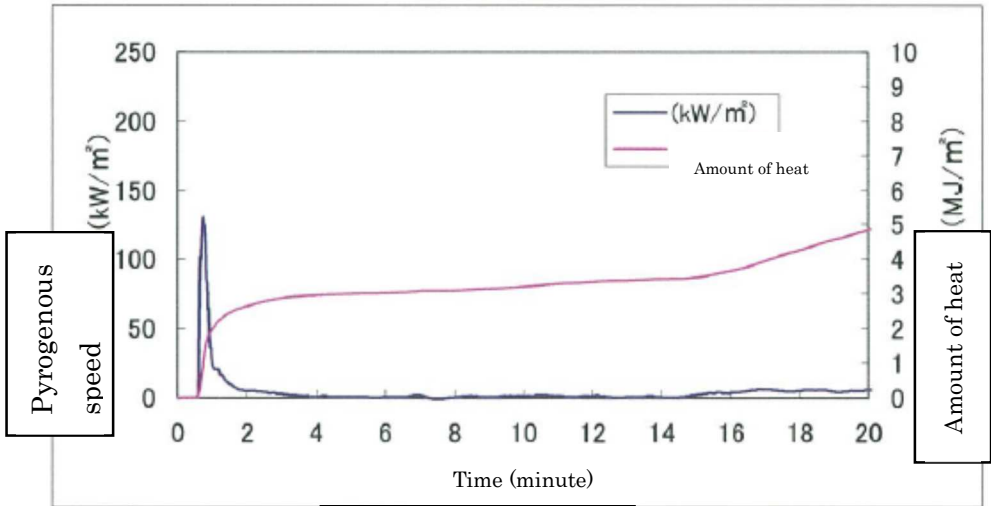


Fig.3 Test piece No.3