

Prüfbericht-Nr.: <i>Test Report No.:</i>	15108087 001	Auftrags-Nr.: <i>Order No.:</i>	244129225	Seite 1 von 6 <i>Page 1 of 6</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	26.03.2019	
Auftraggeber: <i>Client:</i>	Chubutsu Viet Nam Co., Ltd Dong Van 3 Industrial Zone, Tien Noi, Duy Tien, Ha Nam			
Prüfgegenstand: <i>Test item:</i>	Insulation tube			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	SP30-TCBV07			
Auftrags-Inhalt: <i>Order content:</i>	Performance test report			
Prüfgrundlage: <i>Test specification:</i>	BS EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests Class B_L-s1, d0			
Wareneingangsdatum: <i>Date of receipt:</i>	12.04.2019			
Prüfmuster-Nr.: <i>Test sample No.:</i>	1V0319000044			
Prüfzeitraum: <i>Testing period:</i>	12.04.2019 - 19.04.2019			
Ort der Prüfung: <i>Place of testing:</i>	Guangzhou			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by: 19.04.2019 Daniel Chen / PM Datum Name / Stellung Date Name / Position		kontrolliert von / reviewed by: 29.04.2019 Alex Gu / Reviewer Datum Name / Stellung Date Name / Position		
Sonstiges / Other: Reaction to fire classification: Class B _L -s1, d0 Test samples are provided by the client.				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Liste der verwendeten Prüfmittel
List of used test equipment

[illegible]

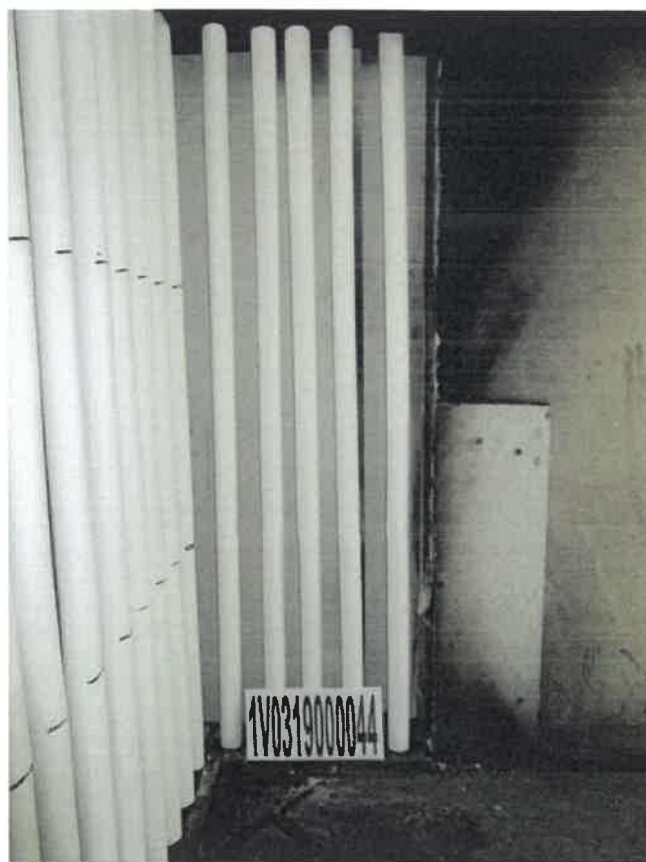
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Produktbeschreibung
Product description

1	Produktdetails <i>Product details</i>	Insulation tube
2	Maße / Gewicht <i>Dimensions / Weight</i>	SP30-TCBV07
3	Bedienelemente <i>Operating elements</i>	N/A
4	Ausstattung / Zubehör <i>Equipment / Accessories</i>	N/A
5	Verwendete Materialien <i>Used materials</i>	N/A
6	Sonstiges <i>Other</i>	N/A

Test samples



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Absatz	BS EN 13501-1:2007+A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

1	Test conducted This test is conducted as BS EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests. And the test methods as following: 1. BS EN 13823:2010+A1:2014 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item. 2. EN ISO 11925-2:2010 Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame - Part 2: Single-flame source test.																																													
2	Test results Reaction to fire classification: Class B-s1, d0 <table><tr><th>Parameter</th><th>Test method</th><th>Results</th><th>Requirement</th><th>Verdict</th></tr><tr><td>FIGRA (W/s)</td><td>BS EN 13823:2010+A1:2014</td><td>7</td><td>≤ 270</td><td>Pass</td></tr><tr><td>LFS (m)</td><td>BS EN 13823:2010+A1:2014</td><td>Yes</td><td>< edge of specimen</td><td>Pass</td></tr><tr><td>THR_{600s} (MJ)</td><td>BS EN 13823:2010+A1:2014</td><td>0.7</td><td>≤ 15</td><td>Pass</td></tr><tr><td>Fs (mm)</td><td>BS EN 13823:2010+A1:2014</td><td>33</td><td>≤ 150</td><td>Pass</td></tr><tr><td>SMOGRA (m²/s²)</td><td>ISO 11925-2:2010</td><td>0</td><td>≤ 105</td><td>Pass</td></tr><tr><td>TSP_{600s} (m²)</td><td>BS EN 13823:2010+A1:2014</td><td>17</td><td>≤ 250</td><td>Pass</td></tr><tr><td>Flaming particles or droplets within 600s</td><td>BS EN 13823:2010+A1:2014</td><td>No</td><td>No</td><td>Pass</td></tr><tr><td>Ignition of the filter paper within 60s</td><td>ISO 11925-2:2010</td><td>No</td><td>No</td><td>Pass</td></tr></table>	Parameter	Test method	Results	Requirement	Verdict	FIGRA (W/s)	BS EN 13823:2010+A1:2014	7	≤ 270	Pass	LFS (m)	BS EN 13823:2010+A1:2014	Yes	< edge of specimen	Pass	THR _{600s} (MJ)	BS EN 13823:2010+A1:2014	0.7	≤ 15	Pass	Fs (mm)	BS EN 13823:2010+A1:2014	33	≤ 150	Pass	SMOGRA (m ² /s ²)	ISO 11925-2:2010	0	≤ 105	Pass	TSP _{600s} (m ²)	BS EN 13823:2010+A1:2014	17	≤ 250	Pass	Flaming particles or droplets within 600s	BS EN 13823:2010+A1:2014	No	No	Pass	Ignition of the filter paper within 60s	ISO 11925-2:2010	No	No	Pass
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3	Classification and direct field of application This classification has been carried out in accordance with EN 13501-1:2007+A1:2009. a) Classification The product, “Insulation tube - SP30-TCBV07”, classification is meet the following, <table><tr><td>Fire behaviour</td><td></td><td>Smoke production</td><td></td><td>Flaming droplets</td></tr><tr><td>B_L</td><td>—</td><td>s</td><td>1</td><td>, d 0</td></tr></table> Reaction to fire classification: <i>Class B_L-s1, d0</i> Remark: The classes with their corresponding fire performance are given in annex A.	Fire behaviour		Smoke production		Flaming droplets	B _L	—	s	1	, d 0	P F N/A N/T ☒ ☐ ☐ ☐																																		
Fire behaviour		Smoke production		Flaming droplets																																										
B _L	—	s	1	, d 0																																										

P ☒
F ☐
N/A ☐
N/T ☐

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b) Field of application

This classification for the submitted sample is valid for the following end use condition:

- With all substrate classified A1 and A2
- With mechanically fixing with screws
- No joint

This classification is valid for the following product parameters:

- Characteristics are described in § II b of this test reports.

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

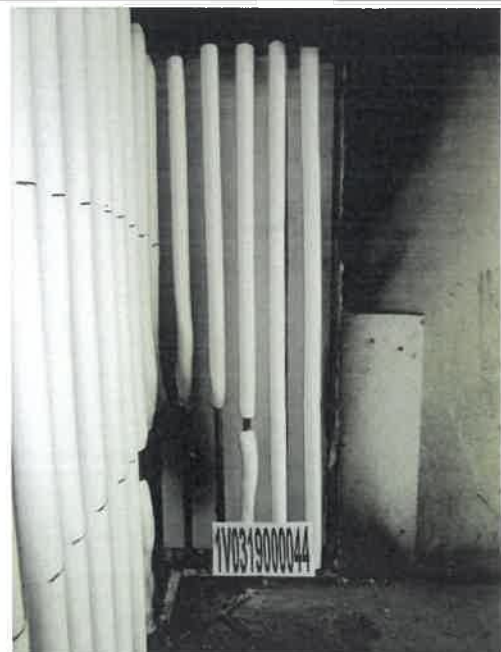
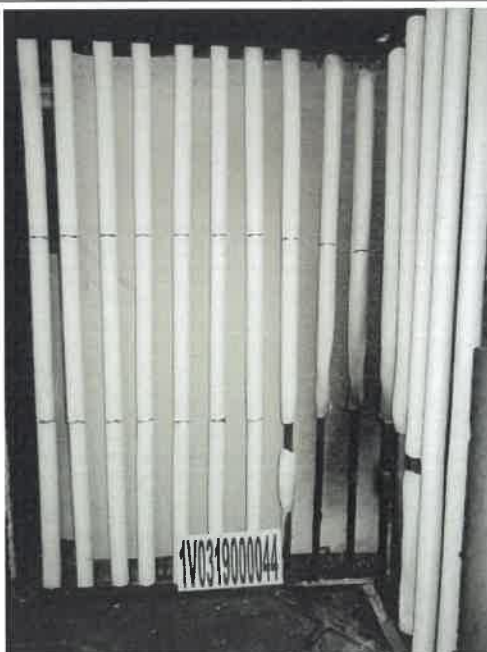
Warning:

This classification report does not represent type approval or certification of the product.

The test laboratory has, therefore, play no part in sampling the product for the test, although it holds appropriate references to the manufacturer's factory production control that is aimed to be relevant to the samples tested and that will provide for their traceability.

Photo Appendix:

After testing according to BS EN 13823:2010+A1:2014



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Annex A Installation introduce for BS EN 13823:2010+A1:2014:

The samples were installed as the follow introduce.

1. The test samples were installed out the steel pipe:

Steel pipe

Diameter: 21.3 mm

Wall thickness: 2.5 mm

Distance between two samples: 50 mm

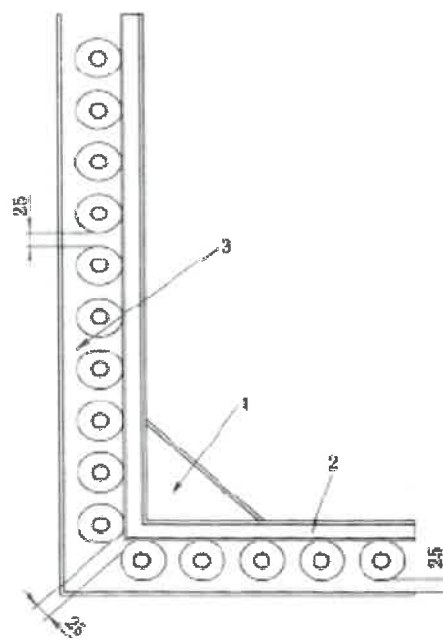
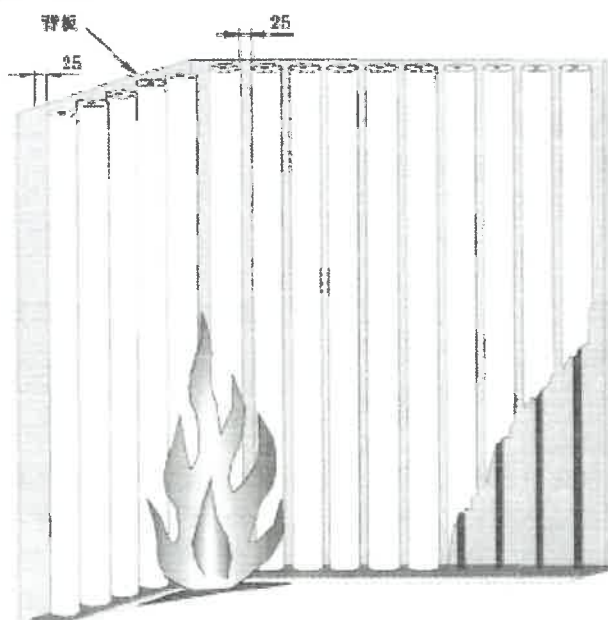
2. Backing board

Material: $\text{Si}(\text{CO}_3)_2$

Thickness: 12 mm

Density: 900kg/m³

Distance between back panel and samples: 25 mm introduce



End of Report