

RESEARCH REPORT NO. RTE2/02
2.1.2002

2002 -01- 04

Compressibility of flooring underlay products

Requested by: Tupler Oy

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Requested by Tupler Oy
Suonsivunkatu 14
33420 TAMPERE

Order Klaus Gummerus, 29.11.2001

Contact person at VTT Group Manager Eva Häkkä-Rönnholm
VTT BUILDING AND TRANSPORT
P.O.Box 1801 (Betonimiehenkuja 3, Espoo)
FIN-02044 VTT, Finland
Tel. + 358 9 456 4930, Fax + 358 9 456 7006
eva.hakka-ronnholm@vtt.fi
<http://www.vtt.fi/rte/>

Task Compressibility of flooring underlay products

Sample The customer delivered to VTT the following flooring underlay products:

Sample 1: 3 mm foam from Germany
Sample 2: 2 mm foam from USA
Sample 5: Tuplex from Finland

Performance of the task The tests were performed by laying the samples between two steel plates of size 100 x 100 x 10 mm. The samples were preloaded with 10 N for 60 s and then the load was increased to 60 N for 7 days. This load corresponds approximately 600 kg/m². The compression was measured during the loading. Before the compressibility test the thickness and the square weight of the products were determined.


Results The results of the compressibility tests are presented in table 1.

Table 1. Compressibility of flooring underlay products.

Sample	Thickness	Square weight	Compressibility at loading				
			Preload 10 N	Load 60 N			
			60 s	5 min	24 h	7 d	
3 mm foam from Germany	2.3 mm	41.0 g/m ²	0.01 mm	0.05 mm	0.37 mm	1.28 mm	56%
3 mm foam from USA	1.8 mm	125.8 g/m ²	0.01 mm	0.03 mm	0.21 mm	0.78 mm	43%
Tuplex from Finland	2.9 mm	150.5 g/m ²	0.00 mm	0.02 mm	0.04 mm	0.12 mm	4%

Espoo 2.1.2002


Eva Häkkä-Rönnholm
Group Manager


Lina Markelin-Rantala
Research Scientist

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