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Innovation Patent Examination Report No. 1

Application Details

Patent Application No.:	2015100420
Applicant(s):	United States Gypsum Company
Applicant reference:	701159AUDIV3/91
Earliest Priority Date:	25 February 2011
Examination Request Date:	07 October 2015
Examination Requested By:	James & Wells Intellectual Property

Your application has been examined under Section 101B of the Patents Act 1990. I consider that the application does not meet the requirements of the Act for the reasons indicated below.

Actions you can take

You have 6 months from the date of this report to remove all grounds of revocation otherwise your Innovation Patent will cease.

Basis of the report

In examining your application I have considered:

- the granted innovation patent

Statement of Novelty, Innovative Step and Patentable Subject Matter

Novelty/Innovative Step	Claim No. 1-5 Claim No. NONE	**Yes** **No**
Patentable Subject Matter	Claim No. 1-5 Claim No. NONE	**Yes** **No**

Section 40 (Support, Disclosure, Clarity, Lack of Unity)

1 The complete specification does not provide a clear enough and complete enough disclosure of the invention of claims 1-5 as required by subsection 40(2)(a) because it lacks sufficient information to enable the person skilled in the art to perform the invention over the whole scope of the claims without undue burden or the need for further invention.

The specification provides information on preparing a number of gypsum panels, and details of how to carry out testing of the panels and there are a lot of process and starting material variables that will affect whether a panel has the claimed parameters (e.g. the core density, the core hardness, the Thermal Insulation Index and the fire resistance). The question of disclosure is whether a person seeking to follow the instructions in the present specification could adjust the process and materials so as to achieve with certitude the full combination of properties – as a matter of reasonable trial and error (i.e. without undue burden). Where the work involved in adjusting the composition of the panels amounts to reasonable trial and error, then the specification provides an adequate disclosure. However, if the work involved amounts to an undue burden, then the specification has not provided an adequate disclosure.

The specification does not provide clear guidance telling the person skilled in the art how to adjust the process and materials so as to achieve with certitude the full combination of properties, in particular the fire resistance of the panel. As detailed in the evidence for the Opposition to AU2012222102, not all panels according to the general principle of the use of high expansion particles provide certifiably fire resistant panels. Given that there are a lot of process and material variables and the apparent random relationship of these variables to the fire resistance, any adjustment to the process and/or materials to achieve certifiable fire resistance would amount to an unreasonable amount of trial and error.

Furthermore, the various tests in the specification such as Thermal Insulation Index, High Temperature Thickness Expansion and High Temperature Shrinkage tests are "very simple and cost-effective to perform" and do not correspond to the "full scale fire testing", which is "expensive". It appears that in light of the expense, fire testing of gypsum panels is rare; it typically only happens when there is a development in technology or a reason that a manufacturer wanted to re-certify its product. Furthermore, it would be far from reasonable for a person in this art to carry out fire resistance testing according to the UL or ASTM procedures as part of normal trial and error. As presented in the evidence for the Opposition to AU2012222102, the cost of doing so would appear to be prohibitive. Hence, the testing of samples to determine whether they are fire resistant would be an undue burden.

Therefore, the specification does not provides a disclosure of the invention that is clear enough and complete enough for the invention to be performed by a person skilled in the art.

2 Claims 1-5 lack the support required by subsection 40(3) because the invention defined by these claims does not correspond to the applicant's technical contribution to the art.

It appears that the use of high expansion particulates to produce a low density, fire resistant gypsum panel was the contribution to the art. While it is readily apparent that the specification discloses the use of such particulates, it is apparent from what is said above that the use of these particulates does not guarantee that the low density gypsum panel will be fire resistant. Rather, high expansion particulates will sometimes lead to a fire resistant panel, and sometimes will not. Based on what is disclosed in the specification, it is unpredictable whether a panel containing high expansion particulates will be fire resistant. In this regard samples 3 and 4, which are apparently identical apart from their density, are of significance. Sample 4 is fire resistant according to the tests conducted, but sample 3 is not. The art has been advanced only to the extent that it is now known that high expansion particulates can produce a low density, fire resistant gypsum panel in some instances. However, the specification cannot demonstrate a general principle by which the result of a low density, fire resistant gypsum panel will be achieved. The technical contribution to the art is that high expansion particulates can produce a low density, fire resistant panel when prepared according to the samples numbered 1, 4, 5, 12, 13, 14, 18, 19 and 20 as discussed in the Opposition for AU2012222102.

The claims are limited to method for making gypsum panels that contain high expansion particles and are fire resistant. However, the technical contribution to the art is more limited than this. Consequently, the scope of the claims is not supported by the technical contribution to the art.

Documents Cited or Considered Relevant

D1 : US 2006/0068186 A1 (LECLERCQ et al) 30 March 2006 *
Category: **A** Claims: 1-5

D2 : US 2005/0263925 A1 (HESELTINE et al) 01 December 2005 #
Category: **A** Claims: 1-5

D3 : US 3616173 A (GREEN G.W. et al) 26 October 1971 ^
Category: **A** Claims: 1-5

D4 : US 2008/0087366 A1 (YU et al) 17 April 2008 ^
Category: **A** Claims: 1-5

D5 : US 4647486 A (ALI) 03 March 1987 ^
Category: **A** Claims: 1-5

D6 : US 2526066 A (CROCE M.) 17 October 1950 ^
Category: **A** Claims: 1-5

D7 : US 2744022 A (CROCE M. et al) 01 May 1956 ^
Category: **A** Claims: 1-5

Cited in the International Search Report and the IPRPI for the International Application No. PCT/US2012/026613
* Cited in the US Examination Report/Notice of Allowance dated 15 November 2013 for Application No. 13/669283.
^ Cited in the Statement of Grounds and Particulars submitted by Opposition for AU2012222102 and/or AU2014201626

Special categories of cited documents (based on PCT standard):

A: Document defining the general state of the art which is not considered to be of particular relevance.

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