

Green Star SA Mat-7 PVC Minimisation Credit Review

FACT SHEET / COMMUNIQUE

(April 2012)

“In late 2011 the Green Building Council of South Africa (GBCSA) completed a comprehensive credit review process for the Mat-7 PVC Minimisation credit which is one out of approximately seventy credits in the Green Star SA green building rating system.

The GBCSA Technical Steering Committee (TSC) resolved to withdraw the credit after considering the outcomes of the credit review which involved stakeholder engagement through a PVC Expert Reference Panel and precedents set by other green building councils surrounding the treatment of PVC in green building rating tools. The withdrawal of the PVC Minimisation credit does not imply that PVC is or is not a “green” building material, nor that the GBCSA has endorsed, or given “the green light” to PVC. Statements implying that the GBCSA has endorsed a material by its exclusion from the Green Star SA rating system are inaccurate and considered misleading.”

Summary -

As of the 19th October 2011, the GBCSA Technical Steering Committee (TSC) of the Green Building Council of South Africa (GBCSA) resolved to withdraw the Mat-7 PVC Minimisation credit (“the credit”) from the Green Star SA green building rating system.

The decision to withdraw the credit was based upon:

- a) The recommendations of a PVC Expert Reference Panel;
- b) The South African PVC industry response to a detailed technical PVC questionnaire;
- c) Consideration of the precedents set by other green building councils surrounding the treatment of PVC (notably the councils of the United States and Australia); and,
- d) The desire to avoid unintentional market consequences of a revised PVC credit within the Green Star SA rating scheme.

The credit will be withdrawn from the Green Star SA rating system in the following manner;

- **NEW AND FUTURE TOOLS:** The credit is omitted from the Green Star SA – Multi Unit Residential (Version 1) rating tool (released October 2011), and will be omitted from the Green Star SA – Public & Education Building (Version 1) rating tool (to be released October 2012). All future Green Star SA rating tools developed by the GBCSA will not include a PVC-related materials credit;

AND

- **EXISTING TOOLS:** The credit is to be retained in the Green Star SA – Office (Version 1) and Green Star SA – Retail Centre (Version 1) rating tools until such time as they are updated to Version 2. Due to the structure of the Green Star SA rating system, and to ensure past certified projects are not disadvantaged, it is not possible to remove the Mat-7 PVC Minimisation credit from existing Version 1 tools.

The withdrawal of the Mat-7 PVC Minimisation credit does not - in any way - impact projects which have achieved Green Star SA certification, nor projects registered with the GBCSA for either Office (Version 1) or Retail Centre (Version 1) certification. Registered projects are to proceed as per normal; if a Project Team elects to target the Mat-7 PVC Minimisation credit for compliance, it may do so.

The inclusion or exclusion of specific materials from the Materials category of the Green Star SA rating system should not imply that a particular material is or is not green, nor that the GBCSA has endorsed or given “the green light” to a particular material. Statements that the GBCSA has endorsed a material by its exclusion from the Materials category are inaccurate and considered misleading.

The Southern African Vinyls Association (SAVA) have taken the initial step of developing and implementing a voluntary stewardship program for PVC resin and product manufacture for the South African industry. The GBCSA looks forward to watching this initiative develop, producing meaningful improvements to the PVC life cycle with regards to environmental and human health impacts.

Background Information -

The review of the credit was precipitated by the findings of a literature review completed by the Green Building Council of Australia (GBCA) regarding the life cycle of PVC building products. This review was completed within the scope of an extensive stakeholder engagement process with the Australian PVC industry.

The conclusion of the GBCA literature review was;

“[T]hat where international opposition to PVC remained it was based on historical industry practices which had led to unacceptable health risks and/or environmental impacts. These concerns did not take into account the significant achievements within the PVC industry in recent years, particularly in Australia and Europe, to reduce the environmental and human health risks previously associated with PVC building materials. In addition, these concerns did not reflect the findings of independent scientific assessments, as well as comparative risk and impact studies, between PVC and non-PVC alternative materials. The PVC literature review also found that, while there are still some challenges to be addressed, PVC performs as well as, or better than, the alternatives in most product categories. Furthermore, it found that environmental and human health risks associated with PVC can be minimised by using best practice in the manufacturing and end-of-life management phases of the PVC life cycle.”¹

These conclusions resulted in a comprehensive revision of the GBCA Mat-7 PVC Minimisation credit.

Whereas the previous GBCA Mat-7 PVC Minimisation credit actively promoted the avoidance of PVC in the built environment, the new revised GBCA PVC credit aims to encourage the manufacture and use of PVC which meets GBCA “Best Practice PVC Guidelines” (“the guidelines”).

The guidelines address the manufacture of PVC resin and products, and end of life management of PVC products. The intent of the GBCA PVC Guidelines are that they are to be used by manufacturers of PVC resin and PVC products used within the built environment to significantly minimise the health risks and impacts arising from the life cycles of their products.

For a broader international view on the treatment of PVC, preceding the GBCA review of the Mat-7 PVC Minimisation credit, in 2004 the U.S. Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED) Steering Committee commissioned a PVC Task Group to assist the Technical and Scientific Advisory Committee (TSAC) in reviewing the basis for the inclusion, or otherwise, of a PVC-related materials credit in the LEED green building rating system. In 2007 the TSAC PVC Task Group released its comprehensive findings, with the key finding that there was no basis for the inclusion of a PVC-related materials credit within the LEED green building rating system.

For South Africa, although the GBCSA shares strong links with the GBCA through the use of the Green Star rating system, amendments made by the GBCA to the rating system are not automatically implemented by the GBCSA for the localised Green Star SA rating system. Such amendments are,

¹GBCA, 2010 ‘Background and Outcomes of the Green Star PVC Minimisation Credit Review’, Pp. 3.

however, reviewed by the GBCSA for consideration of adoption. On the basis of the historical complexity of the treatment of PVC within green building rating tools and criticism from the South African PVC industry, the GBCSA Technical Steering Committee implemented a review of the Mat-7 PVC Minimisation credit.

An Expert Reference Panel (ERP) was formed, in accordance with the procedure implemented by the GBCA, consisting of eight stakeholder representatives. The ERP was to act as an advisory group to the GBCSA to assist with technical matters on domestic and international best environmental practice initiatives related to the manufacture, use and end-of-life of PVC building products. In particular, the ERP would advise on applicability of the revised Australian GBCA Green Star PVC credit to the South African context.

In addition to the ERP meeting, to obtain further objective information, a 'PVC Industry Technical Questionnaire' was developed by the GBCSA and its technical consultants identifying the key issues within the GBCA PVC Guidelines. The response to this was considered as the PVC industry's formal response, and was coordinated by the Southern African Vinyls Association (SAVA), the South African PVC industry's industry body.

On the basis of the outcomes of the ERP and the formal industry response to the technical questionnaire, the following conclusions and recommendations were drawn regarding the future of the Mat-7 PVC Minimisation credit in the Green Star SA rating system:

- The South African PVC industry is addressing historical environmental concerns with PVC and transitioning to improved environmental performance, with current transition of a similar degree to that of the Australian PVC industry. There are, however, several notable aspects of PVC resin and product manufacture within the South African industry which have not yet transitioned to the extent achieved by the Australian PVC industry. In its existing form, the Mat-7 PVC Minimisation credit would be unlikely to drive the improvements necessary. Accounting for this and the continuing transition of the South African PVC industry, and the current transition achieved, withdrawal of the Mat-7 PVC Minimisation credit from the Green Star SA rating system is warranted. This recommendation is drawn in context of the outcomes of the USGBC research and GBCA literature reviews on PVC in the built environment;
- The current environmental performance of the South African PVC industry with regards to PVC resin and product manufacture, and end of life management, is such that the adoption of the GBCA Best Practice Guidelines (in part or in full, localised to the South African context), would be of benefit to the industry to identify the opportunities for environmental impact and health risk reductions in the PVC life cycle. This would stimulate demand for best practice PVC products within South Africa and further transition the industry to best practice environmental performance. However, the adoption of a revised Mat-7 PVC credit within the Green Star SA rating system would result in unintended consequences, which cannot be overlooked regardless of the current environmental performance of the South African PVC industry. These unintended consequences are;
 - Designers and Contractors would need to actively specify and use PVC (compliant to best practice PVC guidelines) to achieve the aim of credit and be awarded up to 2 points, as PVC is now rewarded. This is a significant departure from the aim of the original credit;
 - Although the environmental impact and human health risk associated with substitute products/materials are largely unknown, any alternative product would be at a distinct disadvantage to PVC, regardless of its environmental impact or human health risk as the credit would only reward PVC;
 - For balanced, equitable treatment of all materials/products which may be used for the same applications as PVC within the built environment, all alternative materials should be provided with 'Best Practice Guidelines' relevant to their life cycles. Unless such guidelines are provided for all alternative materials/products, the perception of providing guidelines to PVC only is likely to receive significant criticism from other manufacturers; and,
 - Ultimately, a revised Mat-7 PVC credit would be perceived as a 'PVC industry' credit, tailored to suit its needs only.

Considering these conclusions and recommendations, and the risk of unintended market consequences of the rating system, the GBCSA Technical Steering Committee resolved that the most appropriate action was to withdraw the existing Mat-7 PVC Minimisation credit and to not replace it with a localised version of the GBCA credit.

The Materials category of the Green Star SA rating system is currently based on the principles of reduce, reuse and recycle, fundamental to the practice of green building. Materials targeted with the category are limited to large volume materials; concrete, steel and timber. The challenge of green building rating tools throughout the world is to enable comprehensive and equitable assessment of all materials used. The implementation of Life Cycle Assessment (LCA) based approaches to the assessment of materials will enable this, however LCA methodologies are continuing to evolve and are yet to be integrated within green building rating tools.

Resources -

GBCA, 2010 '*Background and Outcomes of the Green Star PVC Minimisation Credit Review*', Green Building Council of Australia. <http://www.gbca.org.au/green-star/materials-category/revised-green-star-pvc-credit/2716.htm>

GBCA, 2010 '*Literature Review and Best Practice Guidelines for the Life Cycle of PVC Building Products*', Green Building Council of Australia. <http://www.gbca.org.au/green-star/materials-category/revised-green-star-pvc-credit/2716.htm>

Southern African Vinyls Association <http://www.savinyls.co.za/>