






Annual Report 2007

Agrément South Africa

Agrément
Fit-for-purpose
Doelmatig
E loketše morero
E siametse morero
Ho loketse morero
Ukungqamelana nenjongo
E lungele injongo
Yi ringanele xikongomelo

AGRÉMENT SOUTH AFRICA
innovative construction product assessments





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Agrément South Africa

Enabling the introduction of innovation into markets, and minimising associated risks.

Mandate

Established by the Minister of Public Works in 1969 as an independent organisation to bring impartial judgement to the evaluation of innovative construction products and systems in the interest of the consumer.

Business purpose

The certification of non-standardised construction products and systems through technical assessment as being fit-for-purpose.

National relevance

An internationally acknowledged, independent South African agency that serves construction communities nationally by providing specifiers, regulators, financial institutions and users with the assurance that products are fit-for-purpose.

Internationally affiliated

Member of the World Federation of Technical Assessment Organisations (WFTAO).

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BOARD MEMBERS

Mr CJ Schlotfeldt
(Past Chairman)

Ms NF Ncapai

Mr EJ Kruger

Mr MW Marler

Dr RV Milford

Ms ND Shabalala

Mr PNS Makgathe
(Chairman since September 2006)

Mr C Noyana

Adv A Sooklal





MINISTER'S FOREWORD

Thoko Didiza
Minister of Public Works

The growth of the South African construction industry in recent years bodes well for the vision we set ourselves in the mid 1990s when we drafted and adopted the White Paper on the creation of an enabling environment to stimulate the development, growth and transformation of this sector.

Underpinning this growth is, among others, the ability of the country to constantly generate new innovative technologies in support of quality products and services. There is also a need to improve the speed of delivery in our highly competitive industry particularly necessitated by the backlogs in socio-economic development inherited from apartheid and first identified in the Reconstruction and Development Proramme in the early 1990s for immediate attention. The role of the Board of Agrément South Africa becomes inevitably indispensible.

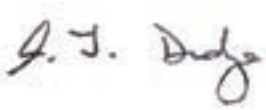
Since its foundation in 1969, the Agrément Board has been in the forefront of poineering research and the ultimate approval and certification of non-standardised and innovative construction products, building systems and roads products as central to its mandate. In the same period the organisation has received 793 applications for certification of which 434 were successfully assessed and certificates granted. This is a sterling record of which we are proud, while simultaneously encouraged by the solid foundation such diligence has laid even for the benefit of other African countries as a contribution to NEPAD and other African Renaissance ideals.

As a continent arising from the prolonged subjugation of colonialism and apartheid, Africa needs to dig deeper into its ingenuity to produce home-grown solutions to its myriad challenges including technologies biased towards promoting job creation, human resource development, social and economic growth while deepening institutions of democracy and governance. Entities such as the Agrément Board are therefore critical to the attainment of the goals of the developmental state as espoused by this government.

It was in this context that the National Department of Public Works took a resolution at its November 2006 Lekgotla to strengthen the cooperation and working relationships with all its public entities including the Agrément Board in the fulfilment of its mandate and the promotion of other socio-economic objectives of government. The resolution became one of the six strategic imperatives designed to optimize the contribution of the Department in social development, economic growth and national transformation.

I and the Department note with great excitement the milestones achieved by the entity in the period under review, notably the increase in the tally of certificates awarded from eight (8) in the preceding year to twelve (12) for the year under review. I would like to take this opportunity to welcome the newly appointed chairperson of the Agrément Board, Mr Phetola Makgathe, following the retirement of the long-serving Carl Schlotfeldt who resigned due to ill health.

Both the chairperson and the new board will be expected to continue to raise the standards and set new expectations for the quality and quantity of outputs. Challenges ahead are merely proportional in strength to the resolve of the men and women at Agrément endowed with the responsibility to make a difference in the lives of South Africans.



Honorable Thoko Didiza
Minister of Public Works

Mr Manye Moroka
Director General
Department of Public Works





CHAIRMAN'S REVIEW

This is my first year serving as the chairman of the Board of Agrément South Africa, in place of the long-serving Mr Carl Schlotfeldt. The year under review saw the national government place a lot of emphasis on human resource development to address the challenge of scarcity of skilled technical personnel. The Board for its part will continue to provide a supportive working environment and encourage the management and staff of the technical agency to enhance their technical skills by regularly attending in-house courses and training sessions, as well as mentorship for interns in support of government's initiatives to address the challenge of technical skills scarcity.

The Board, through its technical agency, continues to discharge its mandate to support policy makers, in government and other regulatory bodies, at all levels in minimising the risk associated with the use of innovative and non-standardised building and construction products. This is achieved by liaising closely with government departments, financial organisations and other national implementing agencies with which Agrément has excellent working relationships.

Agrément South Africa continues to maintain international links with peer organisations and supports the South African construction industry in its export activities by facilitating the certification of innovative South African construction products in foreign countries. Our recent research indicated that South African firms are increasingly being awarded contracts outside South Africa's borders on the strength of their Agrément certificates. This confirms the high levels of confidence placed in Agrément certification on the African continent and boosts the economic development of Africa.

The term of office of the current board expired on 15 March 2007 and the Minister of Public Works is in the processes of constituting a new Board. I look forward to welcoming them at Agrément.

Phetola Makgathe
Chairman, September 2006 to March 2007





FINANCIAL STATEMENT

Statement of costs incurred in respect of Projects: Agrément South Africa

Period: 01 April 2006 to 31 March 2007

			Amount R
INCOME			
Department of Public Works			
Grant received	7 075 000	7 075 000	
Private		505 366	
International		58 070	
TOTAL INCOME		**7 638 436**	**7 638 436**
EXPENDITURE			
Operational costs		**6 241 392**	
Manpower	2 882 545		
Running Costs	3 358 847		
Overheads Costs		**1 214 905**	
Depreciation	48 355		
Shared Service Costs	712 050		
Executive Levies	454 500		
TOTAL EXPENSES		**7 456 297**	**7 456 297**
SURPLUS			**182 139**





AUDITOR'S REPORT

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our future through science

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TO WHOM IT MAY CONCERN

We have been requested to provide a certificate to confirm that the attached Statement of Income and Expenditure for the period 1 April 2006 to 31 March 2007 agrees with the CSIR project records.

We confirm that the statement agrees with the balances for the project in the Agrément Board program in the financial records of the CSIR.

The validity, accuracy and completeness of transactions charged to these projects have not been audited. A Key Control Audit where the abovementioned objectives are addressed is performed twice a year where a sample of transactions of the Operating Unit is audited. The results of previous internal audits have not yielded any issues of concern.

The Statement of Income and Expenditure reviewed is attached and signed for identification by ourselves.

Thabo Pooe
Group Manager: CSIR Internal Audit Services

21 June 2007





Highlights of Agrément South Africa's activities during the year under review included:

- Strengthening the role of Agrément as an implementing agency by increasing visibility and participating in several forums, workshops and seminars. Agrément made several presentations during the year to different stakeholders on its role and mandate. Agrément participates in the Assessors Committee of the Banking Assessor's Association and the South African Bureau of Standards review board.
- Ongoing human resource capacity development within the technical agency resulted in improved technical performance and outputs. There has been a marked improvement in the standard of internal peer reviews undertaken during the certification process.
- An upsurge in overseas applicants, resulting in certification of four building systems, indicates confidence in both the process of Agrément certification and the South African economy, with the potential to promote socio-economic development and growth in the construction industry.
- A 50% increase in the number of innovative construction products, building systems and roads products for which certification was finalised as compared to the previous year.
- Five of the twelve certificates granted were for innovative building systems. The average number of building systems certificated over the previous five years was two. This bodes well as it indicates an upsurge of interest in innovative construction systems.

MANAGEMENT REPORT

Agrément South Africa takes pleasure in submitting to the Honourable Minister of Public Works this annual report and the audited and Board-approved financial statement for the 2006/2007 financial year.

Introduction

Agrément South Africa was established in 1969 and has been active in South Africa for the last 38 years. Agrément operates under a mandate from the Minister of Public Works. This mandate was reaffirmed and updated in 1999 by the then Minister of Public Works, Mr. Jeff Radebe.

Agrément South Africa's primary business is the approval and certification of non-standardised and innovative construction products, building systems and roads products. Agrément carries out tests and assessments which confirm the fitness-for-purpose or otherwise of innovative construction products, building systems and roads products and thereby contributes towards the transformation of the built environment by allowing the benefits of innovation to enter the industry.

The year under review saw the technical agency strengthen the implementation of projects for and on behalf of the Department of Public Works. This was achieved by increasing the total number of certificates awarded by 50% (from 8 in 2005/2006 to 12 in 2006/2007), without increasing the financial and human resources complement.

During the year under review Mr. Phetola Makgathe was appointed as chairman of the Board of Agrément South Africa, in place of the long-serving Mr Carl Schlotfeldt, who resigned due to ill health in September 2006. The





advertisement for new Board members was published in February 2007 and the process of appointing a new Board by the Minister is well in hand.

During the year under review the Board held a strategic planning session to re-assess and if necessary revise its objectives in the light of developments in its operating environment over the last three years. The Board felt that the current mandate was appropriate and the status quo should continue.

The Board met five times during the year, including the strategic planning session, and the table below reflects the attendance of the Board members.

Board member	Number of board meetings attended
Mr E J Kruger	5
Mr P N S Makgathe (Chairman, September 2006 to March 2007)	1
Mr M W Marler	5
Dr R V Milford	4
Ms N F Ncapai	5
Mr C Noyana	4
Mr C J Schlotfeldt (Chairman, April 2006 to September 2006)	2
Ms N D Shabalala	5
Adv A Sooklal	2

Agrément South Africa also appeared before the parliamentary monitoring group's public works portfolio committee at the end of 2006. During this meeting a presentation that covered Agrément South Africa's achievements, successes and opportunities for innovation was made by the manager, who also presented a report on the audited financial statements. Members of the parliamentary portfolio committee showed interest in and sought clarity on various aspects of Agrément South Africa. At the end of the meeting the Committee concluded that it was pleased with Agrément South Africa's activities and understood its strategic purpose and mandate.

Certification

During the year under review, Agrément South Africa received and accepted a total of thirteen applications for certification. Twelve certificates were granted, bringing the total number of valid certificates to 133. In the past 38 years of Agrément South Africa's existence, 793 applications have been received for certification and a total number of 434 certificates have been granted by the Board.

Dissemination of information and creation of criteria

The role of the technical agency includes the dissemination of correct, objective and relevant information regarding technical, socio-economic and regulatory aspects of innovative technology and non-standardised construction products to our stakeholders. The Board of Agrément South Africa authorised the development of performance-based criteria and technical guidelines documents for cold-mix asphalt. The cold-mix asphalt is used for road pavements and has the advantage of being cost effective and easy to apply, and can be used in remote outlying areas with minimal use of plant and equipment. It also has several socio-economic advantages like employment creation potential, poverty alleviation and skills development, thus contributing towards economic development. This guideline will be the fifth in a series of guidelines prepared for road construction products.

Agrément South Africa maintains a database of about 1000 stakeholders in the construction industry. The annual report of Agrément is distributed to these stakeholders as well as to several other interested parties.

Quality Management System

Agrément South Africa's audit and quality management system requirements applicable to certificate holders remain unchanged. As in previous years, in cases where non-compliance has been reported, these have been speedily addressed and rectified by the respective certificate holders.

Support offered to other role players

Agrément South Africa continues its support of policy makers, in Government and other regulatory bodies, at all levels in order to minimise the risk associated with the use of innovations. Agrément South Africa regularly makes presentations to interested parties.





Agrément also continues to maintain a close working relationship with:

- the Construction Industry Development Board
- the Council for the Built Environment
- the Development Bank of Southern Africa
- national, provincial and local government departments
- the National Home Builders Registration Council
- the South African Bureau of Standards
- the South African National Roads Agency Limited

Due to these relationships and interactions, the use of certified, innovative construction products and building systems is well managed.

There have been several successes where Agrément South Africa-approved, innovative systems or products manufactured and installed in accordance with the requirements of the certificate have performed well in use. This illustrates the confidence certificate holders have in the Agrément system's ability to encourage the use of innovative construction products. This is in stark contrast with what has happened with regard to some conventional building products in recent years.

Support of National Building Regulations

Agrément South Africa continues to support the application of the National Building Regulations in that all Agrément certificates for building products or systems list the clauses of the National Building Regulations which are deemed to be satisfied by the products or systems. In carrying out technical assessments, a holistic approach is followed to ensure the tests are as comprehensive as possible to ensure the credibility and acceptance of the certificates. The use of Agrément-certificated products is legislated in the South African National Standards and as such the use of certified products is therefore accepted by building control authorities throughout the country. This enables designers, architects, engineers, builders, building control officials, consumers and other stakeholders to specify, use, approve and invest in Agrément certified products.

Maintenance of international links and facilitation of exports

Agrément South Africa continues to maintain international links with peer organisations and supports the South African construction industry in its export activities by facilitating the approval of innovative South African construction products in foreign countries. Clients and building control authorities in neighbouring countries have accepted Agrément certificates as valuable technical supporting documents and holders of Agrément certificates find that their certificates help to promote their products. They are increasingly awarded contracts outside South Africa's borders. Agrément South Africa continues to have good relationships with the building control and housing authorities in neighbouring countries and endeavours to broaden this. The agency will therefore readily assist certificate holders by auditing the latter's quality management systems on projects in neighbouring countries, if requested, provided such assistance is for the account of the certificate holder.

The manager of the technical agency of Agrément South Africa attended the annual meeting of the World Federation of Technical Assessment Organisations in Pasadena, California, USA. The meeting was a useful opportunity for exchange of ideas and sharing of experiences among peer institutions worldwide.

Human resource development

Agrément South Africa continues to place significant emphasis on human resource development in line with the national initiative to address the scarcity of skilled technical personnel, by providing a supportive working environment as well as ongoing mentorship for interns. During the year under review Masibuye Bacela (Nee Ntantala) and Mary Mabuse completed their formal structured internship programme. The international scarcity of highly skilled built environment professionals makes the selection for appointment a major challenge. The technical agency will continue to seek additional well qualified personnel to work as technical assessors. The agency contributes to addressing the national skills challenges by encouraging existing staff members to further their technical skills by regularly attending in-house courses and training sessions to enhance their skills. This effort, though limited to the technical agency, will ensure that the staff members are competent in executing their responsibilities.





During the year under review, technical assessors Masivuye Bacela (Nee Ntantala) and Mary Mabuse graduated from the Tshwane University of Technology with a B. Tech in construction management and a National Diploma in civil engineering respectively. In addition, four technical assessors made good progress in their studies towards additional qualifications. Benson Wekesa is studying towards a PhD in civil engineering at Tshwane University of Technology, Mathilda Maritz is pursuing a B. Comm degree at UNISA, while Sammy Skosana and Rofhiwa Tshidino are studying for B. Tech qualifications at the University of Johannesburg and the Tshwane University of Technology respectively.

Facilitation of acceptance of innovative products and systems

Agrément South Africa continues to facilitate the acceptance of innovative products within the context of the government's priorities and policies by liaising closely with municipalities, financial organisations and the NHBRC, with whom we have good working relationships.

Certificates granted

During the year under review Agrément South Africa approved twelve Agrément certificates. Details of these certificates appear below:

Isofoam (South Africa) (Pty) Ltd: **Isoboard® Nail Up Insulated Ceilings**
Agrément certificate No. 2006/323

Protea FSG: **Protea Umbono Building System**
Agrément certificate No.2006/324

Africa SCIPS: **SCIPS™ Building System**
Agrément certificate No.2006/325

Nampak L & CP: **Nam-Tex White Roofing Undertile Membrane.**
Agrément certificate No.2006/326

BPB Gypsum (Pty) Ltd: **Rhinowall Walling Systems**
Agrément certificate No.2006/327

Crane Group International LLC: **Crane Building System**
Agrément certificate No.2006/328

Vus'ithemba Project Solutions (Pty) Ltd: **Milled Granulated Metallurgical slag as cement extender**
Agrément certificate No.2006/329

Vus'ithemba Project Solutions (Pty) Ltd & Cembeton Consult: **Granulated Processed Metallurgical slag as cement extender or Filler Sand**
Agrément certificate No.2006/330

Ikhaya Futurehouse Building System (Pty) Ltd: **Ikhaya Futurehouse Building System**
Agrément certificate No.2007/331

Gundle API (Pty) Ltd: **Gundle UT Woven Tile Underlay**
Agrément certificate No.2007/332

Lafarge Roofing (Pty) Ltd SA: **Spunsalation Roofing Radiant Barrier**
Agrément certificate No.2007/333

Nampak L & CP: **"Nam-Tex" White Roofing Undertile Membrane Amended**
Agrément certificate No. No. 2007

Joe Odhiambo



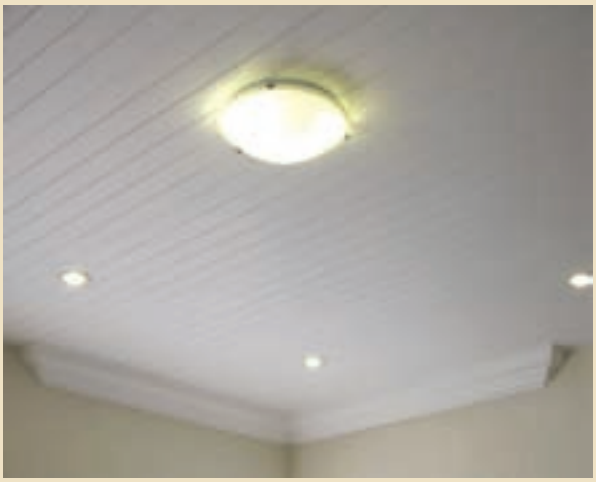


CERTIFICATES GRANTED

During the year under review Agrément South Africa approved eight Agrément certificates. Details of these certificates appear below.

Isofoam (South Africa) (Pty) Ltd: Isoboard® Nail Up Insulated Ceilings
Agrément certificate 2006/323

Isoboard® Nail Up Insulated Ceilings are extruded polystyrene rigid foam board which are fixed to the underside of timber ceiling brandering or cold formed galvanized steel sections or roof rafters by means of



concealed fixing clips and adhesives. Ceiling boards are 600 mm wide with the longitudinal edges tongued-and-grooved and bevelled. Boards may also be supplied with longitudinal grooves cut in their surface (IsoPine boards) which give ceilings an appearance, once installed, similar to that of tongued-and-grooved timber ceilings. Isoboard® Nail Up Insulated Ceiling boards are white or blue in colour, manufactured in standard thicknesses of 25, 30, 40, 50 and 60 mm. The ends of the boards are square-cut.

SOCIO-ECONOMIC AND ENVIRONMENTAL BENEFITS

Isoboard is non-toxic and resistant to bacteria and micro-organism growth. Improved thermal performance of dwellings resulting from the use of this insulation will help to reduce the occurrence of mould growth with its associated health problems.

The material is used as thermal insulation and improves the habitability of dwellings, reducing maximum indoor temperatures in summer and reducing indoor winter heating energy requirements.

Although a by-product of the petroleum industry, the raw material itself, the manufacturing process and the end product are not harmful to the environment.

Nampak L & CP: "Nam-TeX" White Roofing Undertile Membrane. Agrément certificate No.2006/326

The "Nam-Tex" White Roofing Undertile Membrane is manufactured from two outer layers of non-woven, UV- stabilised, spunbonded polypropylene. The two outer layers of spunbond material are laminated together using a blend of polypropylene, low density polyethylene, and UV stabiliser.





CERTIFICATES GRANTED

Lafarge Roofing (Pty) Ltd SA: Spunsalation Roofing Radiant Barrier
Agrément certificate No.2007/333

The top layer of Spunsalation Roofing Radiant Barrier is manufactured from green-pigmented, ultraviolet light-resistant and non-toxic flame retardant polypropylene non- woven spunbond. The layers are laminated via a homogenous polyolefin film web to the aluminium vacuum metallised BOPP film bottom layer. The membrane has a weight of 188 g/m2 and a thickness of between 0, 520 mm to 0,535 mm. It is supplied in rolls 30 m long and 1, 5 m wide.

Protea FSG: Protea Umbono Building System
Agrément certificate 2006/324

The Protea Umbono Building System consists of a modular load-bearing wall and roof structure of cold-formed lipped steel channel sections manufactured from Z275 galvanized steel sheets.

Walls are erected on concrete surface beds with thickened edge beams. Wall frames, once erected, are clad externally in medium density Nutek Board and internally with Firestop Rhinowall gypsum plaster board, or in wet rooms, 15 mm Rhino Moisture Resistant board. All external walls are insulated with 40 mm of Isotherm, or similar thermal insulation.

Roof structures are clad in conventional steel or fibre cement roof sheeting. Ceilings are 6,4mm gypsum plasterboard and are installed in all buildings. Ceilings are attached to brandering which are in turn fixed to the underside of the roof structure.

Where specified, ceilings are insulated using 75mm of Isotherm, or similar thermal insulation.

All other aspects of the system are conventional.

SOCIO-ECONOMIC BENEFITS

Performance in terms of safety, health and habitability meets the requirements of the National Building Regulations and of Agrément South Africa.

Factory production of components will reduce the need for large numbers of unskilled and skilled workers on site, facilitate quality control and increase the speed of erection. The steel component of the system can be recycled.

The prefabrication of wall framing and wall cladding and the reduction of wet-trade activity can help reduce typical disruption to the environment usually associated with conventional construction activities.

CERTIFICATES GRANTED

Vus'ithemba Project Solutions (Pty) Ltd: Milled Granulated Metallurgical slag as cement extender
Agrément certificate No.2006/329

The slag is intended for use in all applications for which ground, granulated blastfurnace slag is used as cement extender, notably as:

» cement extender (partial replacement of Portland cement) for ready-mixed concrete

The milled granulated metallurgical slag will be supplied in bulk quantities (eg 28 ton tankers) in South Africa. The slag will be supplied mainly to cement manufacturers and ready-mix suppliers of concrete. The cement manufacturing companies will use it as an additional major constituent to manufacture CEM II, CEM III and CEM V cements. Ready-mix concrete suppliers will blend it as a major additional constituent of cement up to a maximum of 65% of the Portland cement. The use and application of the slag by industry will be guided by the technical data sheets containing the information of the performance of the slag in EN tests and in concrete.

Vus'ithemba Project Solutions (Pty) Ltd :
Granulated Processed Metallurgical slag as cement extender or Filler Sand
Agrément certificate No.2006/330

The product is a granulated processed metallurgical slag. The slag is intended for use as:

(a) major constituent for the manufacture of common cements,

» Portland-slag cements CEM II/A-S and CEM II/B-S
» Portland-composite cements CEM II/A-M and CEM II/B-M
» Blastfurnace cements CEM III/A, CEM III/B and CEM III/C
» Composite cements V/A and V/B
  - by intergrinding the slag with Portland cement clinker, or
  - by grinding the clinker and slag separately and mixing the two, so that the final product (blended cement) complies with the requirements of SANS 50197-1:2000, except that the cement is made with the processed metallurgical slag instead of granulated blastfurnace slag.

(b) or as a latent hydraulic filler sand in concrete.

SOCIO-ECONOMIC BENEFITS

With cement sales in South Africa currently at an all time high and cement manufacturers and cement extender manufacturers running on full capacity, the project has the following benefits:

» The project is complimentary to the existing economic activity by using waste generated and producing useful products for the building industry.
» By using the modified slag as cement extender, valuable natural resources of material for the production of cement are conserved.
» The partial replacement of cement with slag conserves energy and reduce carbon dioxide pollution of the atmosphere.
» The project will contribute to the social development of the Midvaal area by creating work opportunities for the local community, a community with one of the highest unemployment rates in the country according to STATSA.
» Numerous training opportunities will be available to the employees of the project; thus enhancing the skills of the local working community.
» The project will have a positive growth in GDP (gross domestic product)





CERTIFICATES GRANTED

Crane Group International LLC: Crane Building System
Agrément certificate No.2006/328

Crane Building System buildings are single or double-storey buildings constructed under the control of a professional engineer or approved, competent person who prepares a rational design that:

- ensures the structural integrity of the entire building
- adheres to the conditions of this certificate and the certificate holder's detailed specifications and quality management documentation.

Modular load-bearing wall frames constructed of galvanized cold-formed steel channel top and bottom runner tracks, studs and noggings, and bracing manufactured from galvanized sheet steel. Walls are clad externally with Nutek Board and lined internally with gypsum plasterboard. External walls are insulated with fibre glass or EPS insulation. Suspended first-floors, where applicable, are constructed of galvanized cold-formed steel section joists with plywood floor decking.


Roofs are constructed of galvanized cold-formed steel lipped channels trusses, clad with conventional profiled steel or fibre cement roof sheeting, and fitted with ceilings with or without fibre glass or EPS insulation.

SOCIO-ECONOMIC AND ENVIRONMENTAL BENEFITS

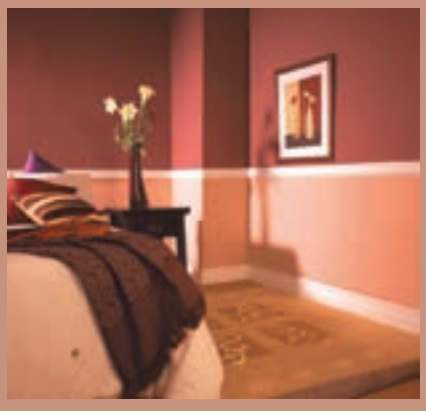
Factory production of components will reduce the need for large numbers of skilled and unskilled workers on site, facilitate quality control and increase the speed of erection. The steel component of the system can be recycled.
The prefabrication of wall framing and wall cladding and the reduction of wet-trade activity can help reduce typical disruption to the environment usually associated with conventional construction activities.

BPB Gypsum (Pty) Ltd: Rhinowall Walling System
Agrément certificate 2006/327

Rhinowall is used as non-load bearing internal walls for single and multi-storey dwellings in all areas of South Africa. The Rhinowall Walling System consists of 15 mm thick Fire-stop Rhinowall Gypsum plasterboard and 15 mm thick Rhino moisture resistant board (MR board). The boards are fixed to 0,5 mm x 58 mm or 102 mm galvanised steel lipped-channel Donn framing with studs at maximum 600 mm centres.
Wall frames comprise galvanized channel base rails, studs and top rails which are fixed to the underside of the ceiling. Once erected, wall frames are clad both sides with 15 mm thick Firestop Gypsum plasterboard. The cavities can be insulated or left uninsulated.
The Rhinowall is fixed onto the frame using 25 mm drywall screws at 220 mm maximum centres. The joints between the boards are sealed with Rhinoglide or flush plastered with Rhinolite.

SOCIO-ECONOMIC BENEFITS

- Rhinowall is a dynamic, safe, creative and adaptable internal walling system.
- Time saving during construction
- Aesthetic properties
- Ease of erection
- Ease of alteration







CERTIFICATES GRANTED

Ikhaya Futurehouse Building System (Pty) Ltd: Ikhaya Futurehouse Building System
Agrément certificate No.2007/331

Ikhaya Futurehouse dwellings are single-storey buildings that are constructed under the control of a professional engineer or competent person who prepares a rational design that ensures the structural integrity of the entire building, adheres to the conditions of this certificate and the certificate holder's detailed specifications and quality management documentation.

The Ikhaya Futurehouse Building System utilises factory produced wall panels and conventional timber roof construction. The wall panel consists of a core of 80 mm thick expanded polystyrene (EPS) with a density of 16kg/m3. The panels have a corrugated profile and are 1,2 m wide x 2,4 m high. Galvanised weldmesh to both sides of the EPS is electro-welded to galvanised wire ties passing through the EPS core.

A reinforced concrete ring beam is cast at eaves-level to all external eaves and gable walls. External corner and T-wall junctions are reinforced with U-shaped reinforcing bars at 250mm centres, passing through the EPS core and the legs on either side of the junction wall.

SOCIO-ECONOMIC BENEFITS

Benefits to home-owner

» Energy-saving – superior insulation compared to traditional building products.
» Sound insulation – increased sound insulation leads to a more comfortable and peaceful living environment.

Construction benefits

» Speed of construction and deployment – can build significantly faster than traditional methods.

Construction method

» Ease of erection, and can be done without using any specialist equipment on site. This means that it can be used in practically all areas of the country and that certain jobs can be taken up with very little building experience.

There is also, however, scope to train construction workers to a more specialised level, thereby creating a skill-set which will benefit local communities and the building sector as a whole.

Gundle API (Pty) Ltd: Gundle UT Woven Tile Underlay
Agrément certificate 2007/332

The Gundle UT Woven Tile Underlay is manufactured from a laminate of spunbonded material and virgin polyethylene.The spunbond layers are UV-stabilised. The membrane has a weight of 142 g/m^2 and the thickness varies between 0,305 mm to 0,335 mm. It is supplied in rolls of 30 m, 40 m long and 1, 25 m wide.

The membrane is installed under tiling and roof battens in a conventional manner.





CERTIFICATES GRANTED

Africa SCIPS: SCIPS™ Building System
Agrément certificate No.2006/325

The Scips Building System is used for erection of walls, floors and roofs in all areas of South Africa for single-storey buildings. The Scips Building System utilises factory-produced wall and roof panels. The core consists of expanded polystyrene (EPS) strips (segment) 105 mm to 110 mm thick, galvanised steel W-shaped wire trusses and galvanised steel weldmesh to both sides of the core. W-trusses are sandwiched between the EPS strips, projecting proud of the EPS, and the strips compressed down to 150 mm, forming a panel 1,2 m wide. 50 x 50 mm weld mesh is wire tied to the W-truss projections.

Both sides of the wall panels are finished by hand-applied or sprayed plaster, which forms an integral part of the wall panel structure.

The roof topping is concrete, worked to a smooth finish and waterproofed. On removal of the props, the ceiling is plastered.

SOCIO-ECONOMIC BENEFITS

» Employment creation
» Ease of erection with unskilled labour
» Ease of transport
» Speed of erection

Scips is eco-friendly, since no trees are destroyed in its production – it uses recycled materials for the foam sections. Similar panels are used for all floors, basements, multiple stories, walls, interior and exterior walling, as well as roof panels.







AGRÉMENT TECHNICAL AGENCY

Standing (left to right):
Lennox Makwedini, Sammy Skosana, Rofhiwa Tshidino, Kevin Bramwell, Joe Odhiambo, Aubrey Bell, Nic Arnold.
Seated (left to right):
Dicksy Rahlogo, Mathilda Maritz, Mary Mabuse, Masivuye Bacela.

"Agrément South Africa is a founder member of the WFTAO, and aligns itself with the organisation's mission, membership requirements and modus operandi."

Joe Odhiambo, Manager

Agrément
Fit-for-purpose
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E siametse morero
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Yi ringanele xikongomelo

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