ANNUAL REPORT

2015 | 2016

What's on our website

In addition to the content that appears in this report, the following can be found online:

Publications
http://www.agrement.co.za/page/publications

The following documentation is included under the *Agrément Certification* tab:

Assessments by Agrément SA
http://www.agrement.co.za/uploads/cms/documents/Assessment_by_Agrement_South_Africax.pdf

Certification Process
http://www.agrement.co.za/uploads/cms/documents/Certification_process__x.PDF

Relationship between Agrément SA and SABS
http://www.agrement.co.za/uploads/cms/documents/ASA_&_SABSx.pdf

Advantages and Benefits of Agrément Certification
http://www.agrement.co.za/uploads/cms/documents/Advantages_and_benefitsx.pdf

Building Approval and the National Building Regulations
http://www.agrement.co.za/uploads/cms/documents/Building_approval_NBRsx.pdf

The Performance Concept
http://www.agrement.co.za/uploads/cms/documents/Performance_Conceptx.pdf

Recommended Procedure (Tendering process)
http://www.agrement.co.za/uploads/cms/documents/Recommending_procedure_for_tendersx.pdf

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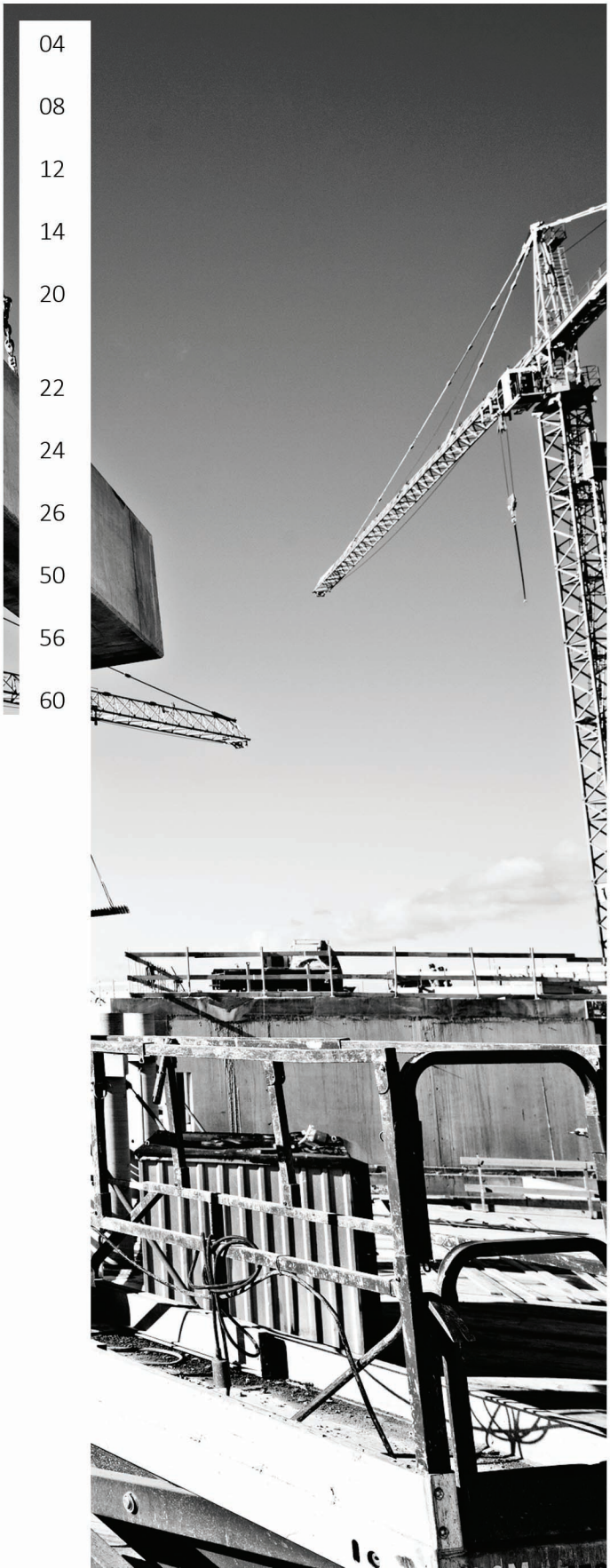


MINISTER'S FOREWORD

"Agrément South Africa is an important player within the Department of Public Works family and contributes to Government's role of improving service delivery to the entire economy by executing its strategic mandate."

As the Executive authority overseeing the activities of Agrément South Africa I am pleased to report that in the year under review, Agrément South Africa achieved a key milestone of becoming a juristic persona. The bill to create Agrément South Africa as a juristic persona was accented to by his Excellency, Hon. Mr Jacob Zuma, President of the Republic of South Africa on 13 December 2015.

During the year under review the Agrément South Africa Act 11 of 2015 followed the prescribed parliamentary process. The draft bill was submitted to parliament and subsequently referred by the speaker of the national assembly to the portfolio committee for consideration. Agrément South Africa observed the process of the portfolio committee on public works until its approval with amendments and subsequently the consideration of the Bill by the National Council of Provinces until it was passed. Parliament then submitted the Bill to the President of the Republic of South Africa for assent.

Benefits of the new legislation

The enactment of the Bill paves the way for Agrément South Africa as a juristic persona and this will eliminate the previous challenge the Department of Public Works had with regard to the funding mechanism applied to the entity. Agrément South Africa will continue as a going concern and its important strategic mandate will remain the same. Agrément South Africa will continue to provide assurance to specifiers and users of the fitness-for–purpose of non-standardised construction related products and systems for which there were no national standards or codes of practice.

Status quo

The Department of Public Works is leading the newly formed Transitional Task Team that will oversee the formation of the newly formed public entity. The Transitional task team comprises representatives from the board and management of Agrément South Africa, the Departments of Public Works and Science and Technology and the CSIR. The Task team will manage the transitional arrangements to ensure Agrément South Africa continues to operate as a going concern.

Role of innovative construction technologies

The Department of Public Works as the custodian of public assets in South Africa has the potential to enhance the role of innovative construction technologies in the country. As a developing economy with a huge rural population in dire need of infrastructure development, the Department of Public Works believes some of innovative construction technologies can play a key role in fast tracking much needed infrastructure development in rural areas. In the year under review the Department of Public Work has successfully undertaken pilot projects using innovative construction technologies and is pleased to note that overall the results were satisfactory proving that some of those technologies have the potential to fast track infrastructure development. During the State of the National Address in 2016, his Excellency the President noted the role of science, technology and innovation as part of the nine-point plan to respond to sluggish growth. The President stated: ***The Department of Science and Technology will finalise the sovereign innovation fund, a public-private funding partnership aimed at commercialising innovations that are from ideas from the public and the private sectors***. This statement clearly emphasises the important strategic role Agrément South Africa plays in the overall macro-economic development of South Africa.

Global role for Agrément South Africa

In the year under review, Agrément South Africa championed the safe introduction of innovative technologies within the country. This is an important initiative as it enables the construction industry to make

the correct selection of innovative technologies. Agrément South Africa's rigorous assessment and certification process facilitates the export of South African innovative products and construction systems to the rest of the global economy. The Agrément South Africa assessment procedure allows for advances in national legislation and in global trends to be incorporated as part and parcel of its technical assessment criteria thus allowing the Agency to keep up with current amendments and changes in the global technical trends.

Agrément South Africa is an important player within the Department of Public Works family and contributes to the entire Government's role of improving service delivery to the entire economy by executing its strategic mandate.

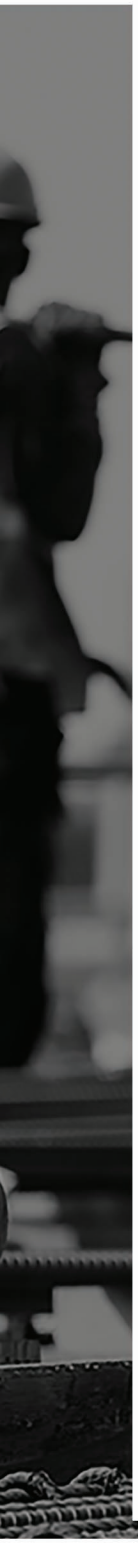
I thank the Board of Agrément South Africa on its oversight role and steering the organisation through the transitional phase. I wish to thank the CEO, Mr Joe Odhiambo for his exemplary leadership of the organisation enabling it achieve its strategic mandate in the financial year under review.

Honourable Mr TW Nxesi (MP)
Minister of Public Works


ZUBLIN

CHAIRPERSON'S STATEMENT

"The year under review saw Agrément South Africa continue to play an important strategic role within the greater technical infrastructure delivery sphere of South Africa."



The Board of Agrément South Africa continued to exercise its oversight role over the Agency. This ensures the efficient and sustainable management of public funds transferred from the Department of Public Works as well as the fees paid in by applicants in the form of technical assessment and annual fees. This is vital for successful corporate governance of Agrément South Africa.

Term of office for the current board

The term of the current Board of Agrément South Africa was extended by the Minister of the Department of Public Works until such time as the new members of the Board take office. The extension of tenure of the current Board was to enable the smooth transition of the Agency to a juristic persona. It is viewed as a critical that the agency continue as a going concern without any disruptions in the execution of its important strategic mandate.

Role of technical assessments

The year under review saw Agrément South Africa continue to play an important strategic role within the greater technical infrastructure delivery sphere of South Africa. The assessment of non-standardised construction products entails the scientific assessment of products and construction system performance. The assessment process enables the Board's Technical Committee to ensure that the assessment team has applied its mind prior to approving or dis-approving applications for certification. The successful culmination of assessments on applicant's products or construction systems allows the Board to grant a certificate of fitness for purpose. Certificates have deemed to satisfy status in the National Building Regulations and the Building Standards Act 103 of 1977 (as amended). Thus any Agrément South Africa certificate complies with the Act which promotes uniformly in the law relating to the erections of buildings and other technical infrastructure. This, therefore, gives credence to the Agrément South Africa certificate as it is issued in terms of an Act of Parliament and thus in terms of the Constitution of the Republic of South Africa. The rigorous assessment process of Agrément South Africa ensures that once a certificate is issued one can use the product or system with confidence as it has undergone rigorous scientific assessment and has been proven fit-for-purpose.

Operational structure

The year under review saw Agrément South Africa continue to operate under the auspices of the CSIR. Agrément South Africa has been at the CSIR since its inception in 1969. This year is its 47th year of existence and Agency continues to render the very important strategic role of assessing the fitness- for- purpose of construction products and systems. During this period Agrément South Africa has performed in an exemplary manner due in part to the support from the CSIR. This support includes but is not limited to that provided by Shared Services, the Executive Director of the Built Environment, the CSIR Executive, and the access to the intellectual capital within the CSIR as well as access to and use of the CSIR testing grounds and laboratories.

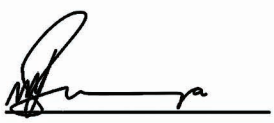
Agrément South Africa to continue as a going concern

The reason why Agrément South Africa was created and located at the CSIR in 1969 is partially still valid. It is, therefore, the Board's opinion that Agrément South Africa should continue as a going concern, largely 'as is' which will enable it to continue to enjoy the strategic benefits of being within the sphere of a research institution. The Board took the decision that Agrément South Africa will remain within the CSIR campus in Pretoria, Port Elizabeth, and Stellenbosch. The Board acknowledges and appreciates the support from the Department of Science and Technology and the CSIR

over the past 47 years and is grateful that this support will continue to be provided once the transitional arrangements are completed resulting from the new legal status of Agrément South Africa.

Technical committe

The technical committee of the Board has the key responsibility to review evaluation reports and draft certificates and if satisfied approve them for certification. The technical committee relies heavily on external technical experts for their independent technical opinions. This is extremely vital for the credibility and independence of the expert opinion. In the 47 years of existence, Agrément South Africa has continued to rely on these experts; who have continued to support the Agency in its execution of its strategic mandate. Some of the experts are from CSIR while others are from other government agencies, universities, research organisations and sister assessment organizations overseas. A technical expert is an individual who has the expert knowledge, experience, training or skill to provide an expert professional opinion on the fitness for purpose of a product or construction system intended for use in the construction of a building or infrastructure within the built environment. Agrément South Africa selects technical experts who are recognised as industry leaders within their profession. This enables their professional technical expert opinions to be accepted and respected within the construction industry. The Board of Agrément South Africa is highly grateful to the technical experts it has continued to rely on over the years for their commitment to excellence.



Mr Pepi Selinga
Chairperson: Agrément South Africa

AGRÉMENT BOARD MEMBERS

Mr Pepi Silinga
Chairperson of the Board
CEO: Coega

Qualifications:

- M Eng
- Grad Dip Corporate Governance (IOD UK)
- MBA (EBS)
- Grad Dip Company Direction
- Management Development Programme
- Diploma in Industrial Relations
- BSc Civil Eng

Mr Denzil Fredericks
Managing Director: SHEM Consulting & Training (Pty) Ltd

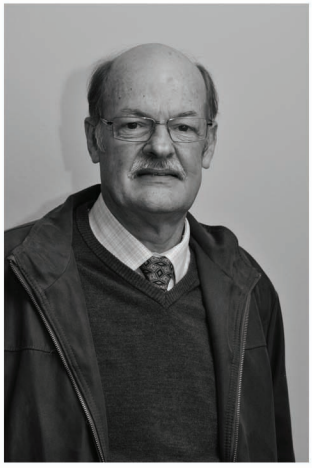
Qualifications:

- Consultant in Occupational Health and safety management
- Accredited OHSAS 18001 Auditor
- Environmental consultant and specialist
- Training Expert in OHSAS management
- Specialist in piping and pressure vessels
- Risk management specialist

Mr Frank Makomo
General Manager: South African Bureau of Standards

Qualifications:

- NDip – Construction and Operations Management
- MBA
- Cert – Implementation and Evaluation of Quality Systems
- Cert – Concrete Technology
- Cert – General Health and Saftey
- Cert – Quality Systems Auditing



Mr Hans Ittmann
Consultant and Logistics expert: Ittmann Consulting (Pty) Ltd

Qualifications:

- BMil (BSc)
- BSc Hons – Operations Research
- MSc – Operations Research
- MBA

Dr Jeffrey Mahachi
Chairperson: Technical Committee
Executive Director: NHBRC

Qualifications:

- BSc – Civil Engineering- Hons
- MSc in Information Technology
- MSc Structural Engineering
- PhD Structural Engineering

Ms Adelaide Ranape
Legal Services Manager: Barloworld Africa (Pty) Ltd

Qualifications:

- BPROC
- NDip Corporate Law
- LLM – Commercial Law
- LLM – Tax Law

Ms Mariana Marneweck
Consultant

Qualifications:

- BSc – Biochemistry, Microbiology
- BSc – Hons – Biochemistry
- M Phil – Future Studies

Ms Ntebo Ngcobo
Lecturer: Dept. of Civil Engineering
University of Johannesburg

Qualifications:

- NDip – Civil Engineering
- BTech – Civil Engineering
- MBA

MANAGEMENT REPORT

"...Agrément South Africa successfully certificated innovative weigh-in-motion systems. These systems can measure the weight of trucks in motion thereby saving the logistics companies lots of time..."

The year under review has been challenging yet fruitful. Agrément South Africa achieved the highest number of certificates approved in one financial year. Agrément South Africa strives for excellence in all its operations. The mandate of the organisation was re-affirmed in the passing of the Agrément South Africa Bill no 11 of 2015. This Bill re-affirms Agrément South Africa's role as an important element within the technical approval sphere of activities in the country.

Technical outputs

In the year under review, Agrément South Africa received a total of 28 certificates application for assessment, out of these applications a total of 22 offers for technical assessments were made to various applicants of who accepted the offers. A record number of 38 certificates were issued after successfully completing technical assessment programs.

Role of the technical innovation industry

These certificates will enable the certificate holders to utilise their products and construction systems thereby safely bringing innovative products to the public in South Africa. Some of these innovative products have socio-economic benefits such as job-creating potential, enhanced thermal and energy performance amongst other benefits. The approval of Agrément South Africa certificates is done by the Board's technical committee in order to separate the technical assessment from the approval process.

The Technical Committee (TeCo) of Agrément South Africa reviews and ratifies evaluation offers. It also reviews and where deemed appropriate, approves draft certificates. The Committee has to satisfy itself that proper procedures are followed; appropriate expertise and all relevant technical issues were involved and considered. The decisions of the committee are based on consensus opinion among the experts and Board members serving on the Committee.

The membership of the TeCo comprises a minimum of at least three Board members and a number of independent professional experts. The CEO is an ex-officio member of the committee. The CEO convenes TeCo meetings as and when necessary according to workload and the urgency of matters to be dealt with.

Technical experts are selected according to their field of expertise, relevant to the subject matter under consideration.

Impact of techical assessment

The impact of technical assessment allows new, improved or old technology utilizing new materials, methods of construction and products to be used in the industry. Examples of innovative products which have been safely introduced in South Africa include the use of un-plasticised polyvinyl chloride water pipes which replaced the mild steel water pipes. Pressed steel roofing tiles, used in many areas as an alternative to concrete roofing tiles. We have recently approved several innovative road pavement systems which offer enhanced performance over traditional road surfacing materials.

Weigh-in motion

In the year under review, Agrément South Africa successfully certificated innovative weigh-in-motion systems. These systems can measure the weight of trucks in motion thereby saving the logistics companies lots of time as the vehicles do not need to stop in order to be weighed at the weighbridges.

Security door

In this financial year Agrement South Africa approved access control doors which are used to provide

controlled and secure access in banks, offices, consulting rooms and other similar facilities.

The doors include a variety of revolving mantrap and anti-bandit features. Various functionality aspects of this door were assessed. The performance in use of the doors met the criteria of Agrement South Africa.

The innovative aspects of the door are the locking mechanism that is suitable for use in the event of fire, its ability to accommodate power failures by means of an emergency power supply which may be used to unlock the door.

Transitional task team

The transitional task team has representatives from the Departments of Public Works, Science and Technology, the Board and Management of Agrément South Africa and the CSIR. The task team makes decisions regarding transitional arrangements for Agrément South Africa and advises the executive authority accordingly for necessary intervention during the transition period. The task team will provide expert advice on issues pertaining to but not limited to finance, supply chain, audit, human resources, change management, legal, information technology and communications management. The role of the task team is to do everything necessary to ensure the Agency is fully operational as ***a going concern*** by the agreed date.

Benefits of the Agrément South Africa Bill

The Agrément South Africa Bill gives Agrément legal persona. This will reinforce Agrément South Africa's role within the overall technical approvals sphere of activities. The roles and responsibilities are clearly stipulated in the Bill. Agrément South Africa will continue to operate as a going concern. Therefore there will be a seamless transition. To minimise any disruption the Board of Agrément South Africa took the decision to continue to operate in its current location within the head office in Pretoria and additional offices in Port Elizabeth and Stellenbosch. One of the key benefits to the agency is that it will become more visible as it becomes autonomous from the CSIR. The increased visibility is likely to increase the impact of the organisation thus bring innovative construction technologies to the fore. The Agrément South Africa bill allowed for a transitional period. The Department of Public Works chairs the Transitional Task Team.

Extract from the Agrément South Africa Act no. 11 of 2015

(As introduced in the National Assembly (proposed section 75); explanatory summary of Bill published in Government Gazette No. 38396 of 16 January 2015)
(MINISTER OF PUBLIC WORKS)
ISBN 978-1-4850-0207-9

Bill

To provide for the establishment of Agrément South Africa as a juristic person; to determine its objects, powers and duties; to prescribe the manner in which it is managed and governed; to provide for transitional arrangements; and to provide for matters connected therewith.

BE IT ENACTED by the Parliament of the Republic of South Africa, as follows:—

Administrative justice

2. (1) Any administrative process conducted or decision taken in terms of this Act must be conducted or taken in accordance with the Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000), unless otherwise provided for in this Act.

(2) All notices required in terms of this Act shall be

submitted in writing.

Agrément South Africa

3. (1) Agrément South Africa, which was established by the Minister and which exists when this Act takes effect continues so to exist and is a juristic person.

(2) The PFMA applies to Agrément South Africa.

Objects

4. The objects of Agrément South Africa are to—
(a) provide assurance to specifiers and users of the fitness-for-purpose of non-standardised construction related products or systems;
(b) support and promote the process of integrated socio-economic development in the Republic as it relates to the construction industry;
(c) support and promote the introduction and use of certified non-standardised construction related products or systems in the local or international market;
(d) support policy makers to minimize the risk associated with the use of a non-standardised construction related product or system; and
(e) be an impartial and internationally acknowledged South African centre for the assessment and confirmation of fitness-for-purpose of non-standardised construction related products or systems.

Powers and duties

5. (1) In order to achieve its objects, Agrément South Africa may exercise the power to—
(a) assess and, if satisfied, certify the fitness-for-purpose of a non-standardised construction related product or system;
(b) issue, amend, suspend, reinstate, withdraw or renew an Agrément Certificate;
(c) enter into an agreement with a person, entity or organ of state, whose services are required to achieve an object or perform a function of Agrément South Africa or the Board;
(d) provide services in relation to the objects of Agrément South Africa to a person, entity or organ of state; and
(e) exercise any other power as may be prescribed or necessary to achieve the objects of Agrément South Africa.

(2) In order to achieve its objects Agrément South Africa has the duty to—
(a) create appropriate structures to execute its executive and operational functions;
(b) develop any rules, processes, procedures, criteria or guidelines necessary to achieve the objects of Agrément South Africa and the execution of its duties;
(c) monitor and evaluate the quality management systems of a certified construction related product or system, in its manufacture, application, installation or erection processes;
(d) communicate relevant information to stakeholders in respect of the technical, socio-economic and regulatory aspects of a non-standardised construction related product or system certified by Agrément South Africa;
(e) support and promote the introduction and use of certified non-standardised construction related products or systems in the local or international market;
(f) establish and maintain international links with peer organizations;
(g) open and operate a banking account in the name of Agrément South Africa; and
(h) encourage research and development of non-standardised construction related products or systems.

(3) Agrément South Africa may-
(a) acquire or dispose of property or a right in respect thereof, but immovable property may only be acquired or disposed of with the prior written consent of the Minister;
(b) invest its funds not immediately required;
(c) insure Agrément South Africa against any—
(i) loss, damage or risk; or
(ii) liability it may incur in the application of this Act;
(d) institute or defend legal action;
(e) determine, charge and collect fees for any services rendered and product and document produced;
(f) charge interest in respect of money due to it from the day after such money becomes due and payable; and
(g) grant a person, entity or organ of state an exemption from the payment of any fee, or a portion thereof.

(4) The powers and duties of Agrément South Africa must be exercised and performed impartially and without undue influence.

Certification

6. (1) Agrément South Africa must make rules in terms of section 28 to determine the processes, procedures and forms for and relating to the—
(a) issuing;
(b) amendment;
(c) suspension;
(d) reinstatement;
(e) withdrawal; or
(f) renewal,
of an Agrément Certificate.

(2) Subject to the payment of the required fees, Agrément South Africa must issue a certificate in the prescribed form, if it is satisfied that a non-standardised construction related product or system is fit-for-purpose.

(3) An Agrément Certificate is valid for three years from the date of issue thereof, subject to—
(a) there being no changes to the subject matter for which such certificate is issued;
(b) the conditions of certification as stipulated thereon;
(c) changes in the law or national standard.

(4) Agrément South Africa may, by notice to a certificate holder stipulating the reasons therefor and the effective date thereof—
(a) amend, suspend or withdraw a condition stipulated in the Agrément Certificate or impose a new condition; or
(b) amend, suspend or withdraw the Agrément Certificate.

(5) It is an offence for a person to falsely represent that a construction related product or system is certified by Agrément South Africa, if an Agrément Certificate has not been issued for such product or system or if such certificate has been suspended or withdrawn in terms of subsection (4).

(6) A person who commits an offence in terms of subsection (5) is liable on conviction to a fine or to imprisonment for a period not exceeding three years.

Renewal of certificate

7. (1) A certificate holder must, at least three months prior to the expiry of the existing Agrément Certificate, apply to Agrément South Africa for the renewal of such certificate.

(2) Agrément South Africa may condone the late application for the renewal of the certificate referred to in subsection (1).

(3) An application for renewal referred to in subsection (1) must be in the prescribed form and accompanied by the prescribed fee.

The management and staff of Agrément South Africa would like to express their gratitude for the continued guidance and support from the Minister of Public Works, Mr TW Nxesi, the Deputy Minister Mr. Jeremy Cronin, the Director General Mr Mziwonke Dlabantu, the Board of Agrément South Africa and Technical experts who are the members of the Technical Committee. Your support is highly appreciated, without which Agrément South Africa would not have been able to execute its mandate.

Joe Odhiambo

Mr Joe Odhiambo
CEO: Agrément South Africa

TECHNICAL COMMITTEE MEETINGS

Certificates approved during the 2015/2016 Financial Year

TECHNICAL COMMITTEE MEETINGS

MONTH	ATTENDEES	CERTIFICATES APPROVED BY COMMITTEE
July	Dr Jeffrey Mahachi (Chairperson) Mr Hans Ittmann Ms Ntebo Ngcobo Ms Mariana Marneweck	Abacus Ezee Space Building System Besta Board Building System Boen EcoSolutions Building System Geopanel Formwork for Concrete Construction Geoplast Modulo Foundation System ITAS Access Control Doors Jets Vacuum Sanitation System Kwikspace Building System Modular Fibre Reinforced Concrete Building System Polyform Building System Shouguang Building System Sterling Building System Sutherland Sheen Coating System Sutherland Tex Coating System TCE Water Storage Tanks
December	Mr Hans Ittmann Ms Mariana Marneweck Ms Ntebo Ngcobo	4Everframe Composite Door Frame Abod House Building System Direct Sanitation Application System Ecobond Non-traditional Soil Stabilizer Makoro Water and Liquid Storage Tanks Mikros Dual Stick-on Loop Traffic Monitoring System Permanent Axle Traffic Monitoring System- AUTOPIZO8 Permanent Axle Traffic Monitoring System- PICOTEL8 Permanent Dual Traffic Monitoring System- TELOOP8 Permanent Dual Traffic Monitoring System- TELOOP8-F Permanent Dual Traffic Monitoring System- WYPROS Pro Close Slip-Clutch Garden Bib Tap Pro-phalt Infrared Road Repair System Selcrete Building System TES Stick-on Loop Traffic Monitoring System
March	Dr Jeffrey Mahachi (Chairperson) Mr Hans Ittmann Mr Joe Odhiambo	BravoMax Building System Durafoil DSD Reflective Roof Insulation Foil Everite Siporex AAC Building System I-Wall Building System Tensa Finger RSFD Bridge Deck Joint UL-M 20/10 Thin Bituminous Road Surfacing System

WFTAO

WORLD FEDERATION OF TECHNICAL ASSESSMENT ORGANIZATION

1 Australia
Australian Building Codes Board (ABCB)
2 Brazil
Instituto de Pesquisas Tecnológicas do Estado de São Paulo S.A. (IPT)
3 Canada
Canadian Construction Materials Centre, NRC (CCMC)
4 Czech Republic
Technical and Test Institute for Construction (TZUS)
5 Denmark
ETA-Danmark (ETA)
6 Finland
VTT Building and Transport (VTT)
7 France
Centre scientifique et technique du bâtiment (CSTB)
8 Germany
Deutsches Institut für Bautechnik (DIBt)
9 Hungary
Non Profit Company for Quality Control and Innovation in Building (ÉMI Kht)
10 Ireland
NSAI Agrément (NSAI)
11 Israel
National Building Research Institute (NBRI)
12 Japan
The Building Center of Japan (BCJ)
13 Japan
The Center for Better Living (CBL)
14 New Zealand
Building Technology Limited/BRANZ (BRANZ)
15 Norway
Norges Byggforskningsinstitutt (NBI)
16 Poland
Instytut Techniki Budowlanej (ITB)
17 Portugal
Laboratório Nacional de Engenharia Civil (LNEC)
18 Romania
Institutul National de Cercetare-Dezvoltare in Constructii si Economia Constructiilor (INCERC)
19 Russian Federation
Science -Technical Centre for Certification in Construction (FCC)
20 South Africa
Agrément South Africa (ASA)
21 Spain
Instituto de Ciencias de la Construccion (IETcc)
22 United Kingdom
British Board of Agrément (BBA)
23 United States
ICC Evaluation Service Inc. (ICC-ES)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ANNUAL FINANCIAL STATEMENT

Internal Audit Services (IAS) has been requested to provide a certificate to confirm the attached Statement of Revenue and Expenditure for Agrément South Africa for the period 01 April 2015 to 31 March 2016.

IAS confirms that the statement agrees with the balances for the project in the financial records of the CSIR. In addition, IAS has performed the following audit procedures:

- Agreed income received to supporting documentation.
- Verified on a sample basis, the labour hours per the accounting records to the approved timesheets and the labour rates to the approved charge out rates per the accounting records.
- Selected a random sample of running expenses and agreed to supporting documentation.

The results of the above procedures are satisfactory and no exceptions were noted.

In addition IAS performs an annual review of the key financial controls to cover aspects such as authorisation, validity/authenticity of transactions and proper recording. The results of the audit recently completed did not yield any issues of concern.

The statement of income and expenditure reviewed is attached and signed for identification by ourselves.

Regards,

PONI NGWATO
MANAGER: RISK ASSURANCE AND IT
INTERNAL AUDIT SERVICES
11 AUGUST 2016

STATEMENT OF REVENUE AND EXPENDITURE FOR AGRÉMENT SOUTH AFRICA

for the financial year ended 31 March 2016

	2016 R	2015 R
REVENUE	13 868 461	11 650 973
Parliamentary Grant	10 268 368	9 667 544
Department of Public Works Annual Grant	10 247 368	9 667 544
Parliamentary Grant: CSIR	21 000	0
Contract income	3 600 093	1 983 429
Local Private Sector	3 326 926	1 823 233
Local Public Sector	19 000	0
International Sector	254 167	160 196
Other income	14 665	9 512
Total Operating income	13 883 126	11 660 485
Expenditure		
Employees' Remuneration	7 215 711	5 927 633
Depreciation	274 623	516 002
Operating Expenses	6 029 035	5 031 456
Total Operating Expenditure	13 519 369	11 475 091
Finance Income	162 267	181 848
Margin for the year	526 024	367 242

CERTIFICATES GRANTED

ABACUS EZEESPACE BUILDING SYSTEM

Abacus EzeeSpace Building System is made up of a standard 6100 mm long x 3050 mm wide x 2850 mm high exoskeleton steel frame. The frame comprises a steel exoskeleton with four corner posts and 1200 mm wide x 2480 mm high x 73 mm thick panels which are slotted between the corner posts.

The foundation and floor slab are conventional and can either be raft or suspended steel floor. Steel must either be hot-dip galvanised in accordance with **SANS 121** or powder coated. The design, erection and approval of the foundation are the responsibility of a registered competent person.

The external wall panels consist of a 60 mm thick Expanded Polystyrene (EPS) core with a density of 15 kg/m^3. The EPS core is clad with 0.58 mm Chromadek on both sides. The external wall is lined with a 12 mm Superboard on its internal face. The internal wall is constructed using a 40 mm thick EPS core clad with 12 mm Superboards on both sides. Panel joints comprise tongue and groove sections.

The roof structure is constructed from light gauge galvanised steel trusses that are designed and erected in accordance with **SANS 517** and clad with light- or heavy-weight cladding. The roof structure is the responsibility of an approved competent person.

Door frames are made from aluminium or powder coated steel and window frames are made from aluminium. Both window and door frames are factory fitted onto the panels during manufacturing stage.

BESTA BOARD BUILDING SYSTEM

Besta Board Building System is a single-storey structure that utilizes factory produced Fibrous Magnesium Oxide (MgO) boards and a light-weight steel superstructure that is sub-supported with a hot-dipped galvanised light-gauge steel frame designed and erected in accordance with **SANS 517**. The foundations and roofs are conventional and are the responsibility of an approved competent person.

The steel is hot-rolled and complies with the requirements of **SANS 3575/ISO 3575** or **SANS 4998/ISO 4998**, and has a coating equivalent in corrosion resistance and robustness to galvanizing (Z275).

The external walls are made up of a light-gauge steel frame clad on either side with 12 mm thick MgO boards and the cavity is filled with 100 mm thick (24 kg/m^3) mineral fibre insulation. Internal walls are made up of a light-gauge steel frame clad on either side with 10 mm thick MgO boards and the cavity is filled with 60 mm thick (24 kg/m^3) mineral fibre insulation. The steel frame consists of studs spaced at 400 mm centres with bracings. The studs for external walls are 102 mm x 30 mm x 0.8 mm C-sections. The top and bottom rails for external walls are 103 mm x 30 mm x 0.8 mm C-sections. The studs for internal walls are 63 mm x 30 mm x 0.4 mm C-sections. The top and bottom rails for internal walls are 65 mm x 30 mm x 0.4 mm C-sections.

The roof consists of conventional steel or timber trusses with light- and heavy-weight cladding. The ceiling is conventional or 6 mm thick Besta™ board.

BOEN ECOSOLUTIONS BUILDING SYSTEM

Boen EcoSolutions Building System utilizes conventional concrete foundations and a 100 mm thick surface bed which are the responsibility of an approved competent person.

The exterior wall panels are 2100 mm x 1220 mm x 102 mm thick comprising an 82 mm thick flame-retardant honeycomb paper core (62 kg/m³) encapsulated with a 10 mm fibre cement board on either side. The interior wall panels are 2100 mm x 1220 mm x 64 mm thick comprising a 52 mm thick flame-retardant honeycomb paper core (62 kg/m³) encapsulated with a 6 mm fibre cement board on either side. Exterior and interior wall panels are plastered and painted with a waterproof coating.

The building structure is made up of a single layer of a lightweight galvanized steel frame with strip footings. The steel studs are manufactured from cold-formed steel that is designed and erected in accordance with the carbon steel requirement of **GB/T700-1988** and high-strength low-alloy structural steel which is designed and erected in accordance to the requirement of **GB/T691-1994**. The frame beams, columns anchor bolts and support systems use Q235B steel. The side flashing edges are connected using self-tapping steel screws.

Roofs are doubled pitched and comprise the same material as that of the wall panels. The roof is supported by the steel structure and is constructed with 2440 mm x 1220 mm x 102 mm thick panels, and covered by a layer of 2.7 mm thick asphalt shingles. The roof structure consists of purlins and H-type steel sections into which the roof panels are slotted. The roof is fitted with PVC gutters and downpipes.

BRAVOMAX BUILDING SYSTEM

Bravomax Building System is a single-storey structure that utilises factory produced wall panels.

Foundations are conventional concrete rafts with thickened edge beams and thickened floor slabs under internal walls. The design and approval thereof are always the responsibility of a registered competent engineer.

The external and internal wall panels are generally 2400 mm or 3000 mm high x 600 mm or 1200 mm wide with 90 mm thick braced surround steel frames encapsulating a Vermiculite light-weight foam concrete with a density of 350 kg/m³ to 450 kg/m³. Walls are finished with 10 mm structural plaster on both sides, resulting in an overall wall thickness of 110 mm.

The frames are manufactured from 90 mm x 30 mm x 10 mm x 0.2 mm thick hot-dip galvanised light gauge steel channels that conform to the requirements of **SANS ISO 4998**, **SANS 121/ISO 1461** and **SANS ISO 3575**.

Roofs are hipped-shaped and are constructed from medium-gauge galvanised steel or timber trusses that are designed and erected in accordance with **SANS 517** and **SANS 10162** respectively, and are always the responsibility of a registered competent engineer.

Doors and window frames (steel, aluminium or Agrément approved) are factory-fitted.

Plumbing and electrical conduits can be pre-fixed or surface mounted onto the composite panels.

DIRECT SANITATION APPLICATION SYSTEM

Direct Sanitation Application System is a one-litre low flush sanitation system, owner maintained and odourless all-terrain flushing toilet. The sanitation system components should be installed in a top structure/closet with a floor, walls and roof of material adequate for its purpose and the closet should be provided with a door to ensure privacy of occupants in accordance with the National Building Regulations, **SANS 10400-Part Q**.

It is a high-density toilet structure that is installed in areas where sewer networks cannot be constructed. The system, however, makes provision to be changed into a flushable toilet whenever a sewer network is constructed.

A one-litre flush is used to clear the excreta into a 30-litre liquefier tank. The excreta break up in the water and the inflow after each flush causes agitation, which helps in the liquefying of solids.

Water for the Direct Sanitation Application System is stored in a 36-litre tank located behind the toilet wall. Rain, tap or clean river water can be used. One litre of water is used per flush to break down the effluent.

The effluent generated undergoes both aerobic and anaerobic digestion through natural bacteria and protozoa present. When the system operates under these conditions the generation of noxious gasses is limited.

The toilet is designed for a maximum of 7 people per household; any additional usage will require an additional or larger soakaway configuration.

DURAFOIL DSD REFLECTIVE ROOF INSULATION FOIL

The Durafoil DSD Reflective Roof Insulation Foil is a six layer composite consisting of two layers of aluminium foil laminated to each other with one layer of polyethylene, reinforced with one layer of fibreglass scrim and two layers of graded polyethylene. The spunbond layer is UV-stabilised. The membrane has a weight of 168 g/m2 ± 10% and the thickness varies between 0.12 mm to 0.14 mm. It is supplied in rolls of 30 m or 40 m long and 1.25 m wide.

Durafoil DSD Reflective Roof Insulation Foil is suitable for installation in domestic and industrial buildings used in conjunction with timber (pitches equal to or greater than 10^{0}) or steel roof construction with concrete roof tiles or galvanised sheet steel cladding, provided that fire sprinkles are installed for industrial application. It can be used in all regions of South Africa for all types of occupancy classification (**SANS 10400: Table 1 of regulation A 20 (1)**). When used as stated in the certificate it can:

- reduce air leakage
- reduce ingress to the roof space of wind-driven rain and dust.

ECOBOND NON-TRADITIONAL SOIL STABILIZER

Ecobond, a non-traditional soil stabilizer, is a modified bitumen emulsion polymer. It is used for stabilizing road base construction materials for both paved and non-paved gravel roads as well as in wearing course for gravel roads.

Ecobond is produced on site through a chemical reaction by mixing bitumen emulsion, synthetic resin, water and a proprietary catalyst. The mixture is added to crushed stone, natural gravels or sand to form a water resistant, elastic and robust layer. It improves the compressive, tensile and shear strength and also the abrasion and water resistance of the particulate materials for road construction. It is insoluble in water and hence does not leach.

The mixing ratios and application rate (mix design) depend on the site specific material and the required road design specifications.

Ecobond is applied at ambient temperature and by use of water tanker trucks. It is applied as a form of bitumen stabilizing material and the standard design methods detailed in SANRAL's manual SAPEM 2013 and SABITA's TG2 are applicable. Alternatively Techneco (Pty) Ltd.'s guideline documents offer application methods.

EVERITE SIPOREX AAC BUILDING SYSTEM

Everite Hebel Autoclaved Aerated Concrete (AAC) Building System is an ultra-light concrete masonry product that consists of basic materials that are widely available. These include sand, cement, lime, fly ash, gypsum, aluminium powder paste, water and an expansion agent.

The panels are factory manufactured with external walls, 100 mm, 140 mm or 200 mm thick. Walls cast in either of two grades of aerated autoclaved concrete referred to as:

- G4/600- having a density of 580 kg/m3
- G5/800- having a density of 725 kg/m3

The foundations are conventional concrete strip footings or concrete raft with thickened edge beams. They are always the responsibility of a registered professional competent engineer.

The roof structures are conventional, and constructed from light-gauge galvanised steel trusses must be designed by a professional registered competent engineer and erected under his supervision. The roof structure is clad with light- or heavy-weight cladding. Engineered timber gangnail trusses with a timber wall plate can also be used if required.

All services are conventional and electrical conduits are chased into the wall surface as one would do for conventional brick structures. The grooves are then filled using proprietary filling compound which is then sanded down and plastered over or simply painted depending on finishing requirements. These services must be specified and installed in accordance with good building practice.

GEOPANEL FORMWORK SYSTEM

GeoPanel Formwork System is a temporary shuttering system for the construction of concrete walls, columns and beams. It consists of a series of various sized panels joined together by the Geoplast fast-lock nylon handle. The formwork system is made of acrylonitrile-butadiene-styrene (ABS) polymer and other additives (pigments, polymer additives, antioxidants, and colourants).

The GeoPanel Formwork System range includes the following products:

- Geopanel: for reinforced cast-in-situ concrete walls and solid reinforced concrete slabs
- Geopanel star: special formwork for reinforced concrete columns in rectangular panels. This formwork is interlockable and adjustable, resulting in different sizes of square and rectangular columns using the same panels
- Geotub: for round reinforced cast-in-situ concrete columns
- Geotub panel: for square and rectangular reinforced cast-in-situ concrete columns, panels in predetermined sizes with chamfered corners

NB. Assembly and dismantling of GeoPanel Formwork System is always the responsibility of a registered competent engineer.

GEOPLAST MODULO FOUNDATION SYSTEM

Geoplast Modulo Foundation System consists of a permanent formwork (Modulo) in recycled polypropylene (PP) that creates a system of pillars and arches supporting the ground floor slab once concrete is poured on them. The foundations are always the responsibility of an approved competent person.

The Modulos are surrounded by reinforced edge and centre beams to support the wall loads and increase stiffness as required by the loading and soil conditions of specific sites. The modulos are available in area dimensions of 500 x 500 mm or 580 x 580 mm or 710 x 710 mm with 18 various heights ranging from 30 mm to 700 mm. The thickness of the concrete topping above, beam sizes and reinforcement are the responsibility of an approved competent person.

Minimodulos formwork with area dimensions of 500 x 500 mm or 580 x 580 mm are also formed with size range of between 30 mm to 90 mm of height.

Mutlimodulo formwork is produced from four or more Modulo moulds connected together to form a single unit formwork of area dimensions of 710 x 710 mm with various heights of between 130 mm to 400 mm.

The foundations are ventilated by creating openings of between 80 to 120 mm Ø using PVC or metallic pipes along the perimeter beams of the foundation in accordance with the design.

The design is in such a way that the slab of the structure is suspended from the ground and a void created beneath is used for ventilating the under-slab surface and housing of services like cables and pipes.

ITAS ACCESS CONTROL DOORS

ITAS Access Control Doors are security doors that are fabricated in a factory using mainly steel, aluminium and glass. The doors include a variety of revolving, mantrap, bandit and anti-bandit and are:

- ITAS two and four door public mantrap doors
- ITAS revolving doors
- ITAS combo doors
- ITAS small-foot mantrap doors
- ITAS big-foot mantrap doors
- ITAS Anti-bandit electric dead bolt locking exit doors with fire door capabilities
- ITAS Anti-bandit magnetic locking emergency exit doors with fire door capabilities
- ITAS two combo door with adjoining hinged sliding door.

I-WALL BUILDING SYSTEM

I-Wall Building System is a single-storey structure that utilises factory produced panels that consist of 100 mm thick expanded polystyrene (EPS) for external walls and a 100 mm or 75 mm thick EPS for internal walls. Wire mesh, which acts as plaster key is secured to both sides of the wall panels. Wall panels are then rendered both sides with 25 mm thick spray applied plaster with the resultant overall thicknesses of 150 mm and 125 mm, respectively.

Both external and internal EPS panels are 2400 mm high with 600 mm, 900 mm or 1200 mm widths. The heights of gable wall panels are determined by the pitch of the roof. Wall panels have grooved vertical edges which accommodate column Masonite biscuits projecting either side to slot into the EPS wall panels.

Foundations are concrete rafts comprising 75 mm thick surface beds on damp proof membranes with thickened perimeter edge beams. Surface beds are also thickened under internal walls.

Roof construction is conventional. Trusses can either be timber or light gauge mild steel with light- or heavy-weight cladding.

Door and window frames can be aluminium, timber, precast concrete or Agrément approved.

JETS VACUUM SANITARY SYSTEM

Jets Vacuum Sanitary System is a vacuum sewage collection and transport system designed for single or multiple flushing of toilets. The system is manufactured by Jets Vacuum AS in Norway and supplied by SA Biotech (Pty) Ltd, based in Benmore, Johannesburg.

The vacuum toilet system uses air, as opposed to water for the transport of sewage. A Jets Vacuumarator™ evacuates air from the drain pipes automatically upon activation of the activator button. A valve opens in the toilet, and the difference in air pressure that results causes the sewage to be flushed. Jets Vacuumarator™ shreds the sewage whilst pumping it towards a collection tank or a BIOtank. Potable water (1 litre) is automatically fed to the toilet as part of the cycle, ensuring good hygiene with minimum water consumption.

The Jets Vacuumarator™ is the main component of the vacuum system. The vacuumarator is a viscous monoblock pump fitted with macerators. It extracts the sewage and then shreds it into tiny particles all in one operation. The vacuumarator handles air and liquids as well, combining both elements at once. Thus it can be used to produce a vacuum, or for suction and pumping of liquids.

A grey water tank is used in the system where the drains from sinks, showers etc. are connected to the vacuum system. The waste water is fed to the tank via a gravity feed system. The tank is fitted with a drain valve connected to the vacuum system and when full, it empties automatically via the vacuumarator.

KWIKSPACE MODULAR BUILDING SYSTEM

Kwikspace Modular Building System is a single storey structure that utilises factory produced wall and roof panels.

The design and approval of the foundation are always the responsibility of a registered professional competent engineer. Steel must always be hot-dip galvanised in accordance with **SANS 121/ISO 1461**.

The external wall panels are typically 2400 mm x 1160 mm x 40 mm thick with tongue and groove edges consisting of two skins. An outer skin of
0.47 mm galvanised chromadek sheeting encapsulating polyurethane foam with a density of 36 kg/m^3 and a 12 mm inner skin of magnesium oxide board (MgO).

Internal walls are made of the same material as the external walls excluding the MgO board with back to back configuration with no airspace between the wall panels.

Roof panels are made of 40 mm thick expanded polystyrene sandwiched between 0.47 mm chromadek and galvanised inverted box rib (IBR) roof sheet.

The panels are delivered on site with factory-fitted window and door frames (steel, aluminium or Agrément approved) and are purposely made to suite the design of the building system.

Plumbing and electrical conduits can be pre-fixed or surface mounted onto the composite panels.

MAKORO WATER AND LIQUID STORAGE TANKS

Makoro Water and Liquid Storage Tanks are moulded from polyethylene powder through a rotational moulding process. The production method is well known and is suitable and reliable for manufacturing plastic tanks for water and liquid storage. The raw materials used in the manufacture are the HR 486 grade of Low Linear Density Polyethylene (LLDPE) polymer as well as H359 polymer supplied by Rotoflo and SASOL Polymers. The roto-moulding manufactured tanks from these polymers are expected to be physically strong and the potable water stored in such tanks has no adverse effects on humans or animals when consumed. The tanks are available in different liquid capacities and different colours up to 10 000 litres.

Makoro Water and Liquid Storage Tanks are manufactured according to customer's requirements. In all cases the temperature of contents should not exceed 60° and must be at ambient pressure. The tanks are designed to withstand the hydrostatic pressure only. These tanks are manufactured from UV resistant virgin material only and no reworked material is used in the manufacturing process. The tanks are lined internally by a black layer of non UV resistant polyethylene.

MIKROS DUAL STICK-ON LOOP TRAFFIC MONITORING SYSTEM

Mikros Dual Stick-on Loop Traffic Monitoring System consist of a dual stick on loop, RAKTEL X010/20, MICROSAC Card, RAKMAN
Power Manager Card, TELOOP8-100 Loop Card, Battery, Bituthene 5000 or similar tape and GPRS modem to download data (optional).

The dual stick on loops is a temporary loop covered with Bituthene 5000 or similar tape and the loops can only be used once. Generally, the stick-on loops are 3 m x 1 m x 50 mm (nominal dimensions) with one or more turns of cross-linked polyvinylchloride (PVC) wires placed on concrete or asphalts pavements.

Mikros Dual Stick-on Loop Traffic Monitoring Systems are installed over the full width of a roadway on new and existing roads. Site requirements are as specified in Chapter 10 of the TMH3.

MODULAR FIBRE REINFORCED CONCRETE BUILDING SYSTEM

Modular Fibre Reinforced Concrete Building System is a fibre reinforced concrete structure, with a density of 900 kg/m3 to 2410 kg/m3.

The walls are constructed by erecting pre-oiled temporary shutters taking into account the wall width (100, 150, 180, 220 or 250 mm) and height (2400, 2700 or 3000 mm). The internal face of the walls are further clad with a 40 mm thick EPS insulation sheet and a 6 mm thick fibre cement board.

The light-weight steel re-usable shutters are pre-designed according to architectural design of the structure. The shutters are manufactured to include corner, window and door details.

Foundation and floor slabs are conventional concrete. The floor slab has starter bars (vertical steel reinforcements) at 300 centres, 100 mm deep and 300 mm high for anchoring the wall to the footing. The floor slab must be at least 150 mm above the normal ground level at any point around the building. All steel reinforcement bars (size and spacing) are always the responsibility of a registered competent professional engineer.

The roof is constructed of conventional standard light-weight steel or timber trusses, and clad with metal sheeting, concrete roof tiles or Agrément approved cladding.

PERMANENT DUAL TRAFFIC MONITORING SYSTEM - TELOOP8

Permanent Dual Traffic Monitoring System with TELOOP8 consist of a dual intrusive loop, RAKTEL X010/20, MICROSAC Card, RAKMAN Power Manager Card, TELOOP8-100 Loop Interface Card, Battery, ZAP3 lightning protection unit, Colseal or similar approved sealant and GPRS modem to download data (optional). The TELOOP8 is an eight channel self-tuning high performance digital loop detector with a lightning protection unit called ZAP3 (powered using 12V).

TELOOP8 loops are permanent embedded loops into concrete or asphalt pavement covered with Colseal or similar approved sealant. Loops are 3 m x 1 m x 50 mm (nominal dimensions) with one or more turns of cross-linked polyvinylchloride (PVC) wires and are installed over the full width of a roadway on new and existing roads and as per client specification. Site requirements are as specified in Chapter 10 of the TMH3.

PERMANENT DUAL TRAFFIC MONITORING SYSTEM - TELOOP8-F

Permanent Dual Traffic Monitoring System with TELOOP8-F consist of a dual intrusive loop, RAKTEL X010/20, MICROSAC card, RAKMAN Power Manager Card, Battery, TELOOP8-F-100 Loop interface card, ZAP3 and ZAP4 lightning protection unit, Colseal or similar approved sealant and GPRS modem to download data (optional). The TELOOP8-F is an eight channel self-tuning high performance digital loop detector with a lightning protection unit called ZAP3 (powered using 12V) and ZAP4 (powered using TELOOP8-F directly to the DB15 ribbon cable header).

TELOOP8-F dual intrusive loops are permanent embedded loops into concrete or asphalt pavement covered with Colseal or similar approved sealant. Loops are 3 m x 1 m x 50 mm (nominal dimensions) with one or more turns of cross-linked polyvinylchloride (PVC) wires and are installed over the full width of a roadway on new and existing roads and as per client specification. Site requirements are as specified in Chapter 10 of the TMH3

PERMANENT AXLE TRAFFIC MONITORING SYSTEM - AUTOPIZO8

Permanent Axle Traffic Monitoring System with AUTOPIZO8 is a combination of dual intrusive loops and piezo sensors. The system consist of a dual intrusive loop, RAKTEL X010/20, MICROSAC card, RAKMAN Power Manager Card, Battery, AUTOPIZO8 axle interface card, Single axle sensor, Colseal or similar approved sealant and GPRS modem to download data. The AUTOPIZO8 axle interface card evaluates the signals from vehicles and automatically scales the threshold and sensitivity levels per individual channel. For the AUTOPIZO8 card to operate effectively a minimum number of light vehicles must traverse the Piezo sensors.

Dual intrusive loops are permanent embedded loops into concrete or asphalt pavement covered with Colseal or similar approved sealant. Loops are 3 m x 1 m x 50 mm (nominal dimensions) with one or more turns of cross-linked polyvinylchloride (PVC) wires and are installed over the full width of a roadway on new and existing roads. The piezo sensors are installed in the same manner as the dual intrusive loop using the RG58 coaxial cable as feeder and are regarded as a single axle sensor. Site requirements are as specified in Chapter 10 of the TMH3.

PERMANENT AXLE TRAFFIC MONITORING SYSTEM - PICOTEL8

Permanent Axle Traffic Monitoring System with PICOTEL8 consist of a dual intrusive loop, piezo sensors, RAKTEL X010/20, MICROSAC card, RAKMAN Power Manager Card, Battery, PICOTEL8 axle interface card, Single axle sensor, Colseal or similar approved sealant and GPRS modem to download data. Permanent Axle Traffic Monitoring System with PICOTEL8s is a combination of dual intrusive loop and piezo sensors. The PICOTEL8 card is a fully digitally adjustable and does not require any potentiometer adjustments. The PICOTEL8 card allows for diagnostic (graphical) sensor display when using the TelWin program.

Dual intrusive loops are permanent embedded loops into concrete or asphalt pavement covered with Colseal or similar approved sealant. Loops are 3 m x 1 m x 50 mm (nominal dimensions) with one or more turns of cross-linked polyvinylchloride (PVC) wires and are installed over the full width of a roadway on new and existing roads. The Piezo sensors are installed in the same manner as the loop wire using the RG58 coaxial cable as feeders and are regarded as a single axle sensor. Site requirements are as specified in Chapter 10 of the TMH3.

PERMANENT DUAL TRAFFIC MONITORING SYSTEM - WYPROS I PWIMs

Permanent Axle Traffic Monitoring System with WYPROS I PWIMs consist of a dual intrusive loop, Piezo sensors, RAKTEL X010/20, MICROSAC card, RAKMAN Power Manager Card, Battery, WYPROS I PWIM axle interface card, Single axle sensor, WINTER98 temperature card, Colseal or similar approved sealant and GPRS modem to download data. Permanent Axle Traffic Monitoring System with WYPROS I PWIMs is a combination of dual intrusive loops and piezo sensors. The WYPROS I PWIM card is to process the signals from up to four piezo weigh sensors. WYPROS I PWIM card needs to have a WINTER98 Piezo temperature card to read the temperature of a temperature probe.

Dual intrusive loops are permanent embedded loops into concrete or asphalt pavement covered with Colseal or similar approved sealant. Loops are 3 m x 1 m x 50 mm (nominal dimensions) with one or more turns of cross-linked polyvinylchloride (PVC) wires and are installed over the full width of a roadway on new and existing roads. The Piezo sensors are installed in the same manner as the intrusive loop using the RG58 coaxial cable as feeders and are regarded as a single axle sensor. Site requirements are as specified in Chapter 10 of the TMH3.

POLYFORM BUILDING SYSTEM

Polyform Building System utilizes factory produced wall panels. The design and approval of the foundation are always the responsibility of approved competent person.

The external wall panel consists of 2800 mm x 250 mm x 105 mm thick expanded polystyrene (EPS) modules with a density of 12 kg/m3, forming a central core of 100 mm x 75 mm x 80 mm which is filled with (reinforced) concrete of 25 Mpa. The modules are finished with 15 mm thick plaster both sides. The wall panels have an overall thickness of 135 mm.

Internal walls are 2800 mm x 250 mm x 100 mm with same composition as the external walls with a central cavity of 60 mm x 50 mm x 40 mm.

The roof comprises conventional timber trusses with light- or heavy-weight cladding and insulated with 80 mm thick rigid EPS with density of 15 kg/m3 in between the trusses, following the slope of the rafters.

Window and door frames are fixed on site into openings after the erection of the wall panels.

Plumbing and electrical conduits should be pre-fixed or surface mounted onto the wall panels.

PRO CLOSE SLIP-CLUTCH GARDEN BIB TAPS

Pro Close Slip-clutch Garden Bib Taps are are 15 mm in diameter, Class 2 (in terms of **SANS 1021**) screw down and manufactured from polyacetal resin.

The taps are intended for use for potable water shut off and garden hose pipe connection in all areas of South Africa.

This certificate and Agrément South Africa's assessment apply only to Pro Close slip-clutch taps that are manufactured by Kielder Komponents cc as described and illustrated in this certificate, and where the terms and conditions of certification are complied with.

PRO-PHALT INFRARED ROAD REPAIR SYSTEM

The Pro-Phalt Infrared Road Repair System is used to repair bituminous surfaces on pavements damaged by potholes and trench crossings.

Repairs are affected by:

- heating the damaged area of the bituminous surface using an infrared heater to between 180 and 200°C
- reworking/recycling the existing surface layer material with new binder and asphaltic material (to make up any shortfall in material) over the damaged area
- raking the surface to tie in with existing surface levels and then compacting.

SELCRETE BUILDING SYSTEM

Selcrete™ Building System comprises a mixture of Expanded Polystyrene (EPS) beads, cement and solution of water with liquid binding agent to form hollow blocks. The blocks have a compressive strength of 7 Mpa and a dry density of between 250 kg/m^3 to 600 kg/m^3. These blocks are produced in moulds on site or factory with sizes of 590 x 190 x 150 mm and 590 x 190 x 190 mm for internal and external walls respectively. The holes are 80 mm diameter.

The blocks are laid in conventional bonding method with mortar mixed with Sikalite® (powdered waterproofing admixture for mortar) as a binding agent. A 20 mm tremnet Polyvinyl Chloride (PVC) mesh is applied to the external walls and finished off with plaster on both sides and painted accordingly.

Foundations are conventional and are always the responsibility of an approved competent person. Roof is of light-weight steel or timber trusses with metal sheeting or concrete tiles or Agrément South Africa approved cladding.

All services are conventional and electrical conduits and plumbing pipes are either surface mounted or grouted in to the walls. These services must be installed in accordance with good building practice.

SHOUGUANG PREFABRICATED BUILDING SYSTEM

Shouguang Prefabricated Building System is a single storey structure that utilises factory produced wall and roof panels.

The design and approval of the foundation are always the responsibility of a registered professional competent engineer. The steel frames conforms to the requirement of **SANS 517** and are generally 2800 mm high and 600 mm wide and manufactured from 78 mm x 1.2 mm thick hot-dip galvanised steel that conforms to the requirement of **SANS ISO 4998, SANS 121/ISO 1461** and **SANS ISO 3575**.

The external and internal wall panels are 2800 mm x 600 mm x 90 mm thick with tongue and groove steel edges consisting of 6 mm fibre cement boards on both sides encapsulating foam cement with a density of 517 kg/m3. The roof structures are constructed from medium gauge galvanised steel trusses that are designed and erected in accordance with **SANS 517** and are the responsibility of a professional registered competent engineer. Trusses are clad with roof panels made of 70 mm thick fibre cement board encapsulating foam cement with light- or medium-weight roof cladding on top.

The panels are delivered on site with factory-fitted window and door frames (steel, aluminium or Agrément approved) and are purposely made to suit the design of the building system.

Plumbing and electrical conduits can be pre-fixed or surface mounted onto the composite panels.

STERLING BUILDING SYSTEM

The Sterling Building System is for single-storey structures. Foundations are the conventional cast in-situ concrete surface beds with thickened edge beams. They are always the responsibility of a professional registered competent engineer.

External wall panels are 158 mm thick and comprise two skins of 6 mm Fibre cement boards which are separated by 100 mm x 100 mm plastic spacers creating a 100 mm thick cavity. The cavity is filled with lightweight reinforced concrete. The internal face of the panel is further clad with a 40 m thick EPS insulation sheet and a 6 mm thick Fibre cement board.

The internal wall panels are 112 mm thick and similar to external wall panels but are without the 40 mm thick EPS insulation.

The roof structure consists of timber or steel trusses with heavy- or light-weight cladding. A professional registered competent engineer must always design the roof to provide support to the gable wall as well as any additional bracing between trusses as required.

All other services are conventional.

SUTHERLAND SHEEN COATING SYSTEM

The Sutherland Sheen Coating System is an interior and exterior two-coat application waterproofing acrylic emulsion paint for use in all regions of South Africa for all types of occupancy classifications (**SANS 10400: Table 1 of Regulations A (20) (1)**), on sound, suitably prepared, external and internal substrates as follows:

- sand-cement plaster
- sand-cement bagged finishes
- cast in-situ concrete/precast concrete
- the above surfaces previously painted with PVA paint and
- prepared gypsum and fibre cement boards.

SUTHERLAND TEX COATING SYSTEM

The Sutherland Tex Coating System is an exterior two-coat waterproofing marble coating system for use in all regions of South Africa for all types of occupancy classifications (**SANS 10400: Table 1 of Regulations A (20) (1)**), on sound, suitably prepared, external and internal substrates as follows:

- sand-cement plaster
- sand-cement bagged finishes
- cast in-situ concrete/precast concrete
- surfaces with unsightly hairline cracks
- the above surfaces previously painted with PVA paint and
- prepared gypsum and fibre cement boards.

TCE PLASTIC WATER STORAGE TANKS

TCE Plastic Water Storage Tanks are manufactured through rotational moulding process. This method is well known and is a suitable and reliable method of manufacturing water storage tanks. The raw materials used in the manufacture are the HR 486 grade of Low Linear Density Polyethylene (LLDPE) polymer as well as the H359 polymer supplied by SASOL. The physical and chemical properties are specified in the SASOL Polymer data sheet.

Roto-moulding manufactured tanks from these polymers are expected to be physically strong and the water stored in such tanks when consumed has no adverse effects on humans or animals. The tanks are available in different liquid capacities, shapes and different colours and 2500 litres being the largest.

TENSA FINGER RSFD BRIDGE DECK JOINT

Tensa Finger RSFD Bridge Deck Joint is a steel cantilever finger expansion joint suitable for light and heavy traffic loading, with movement range between 60 mm and 500 mm. It features noise reducing surfacing, due to the sinusoidal geometry of the interlocking fingers.

The certificate covers the use of Tensa Finger RSFD Bridge Deck Joint in all areas of South Africa. The joint is manufactured by mageba in Switzerland. It was assessed as being suitable for use in concrete bridge structures Tensa Finger RSFD Bridge Deck Joint is suitable for use on bridge deck joints where:

- the maximum movement range is as follows:
  o 60 mm – 500 mm
- the reinforcement steel is installed at a spacing of 200 mm
- the ends of the finger elements are cut at an angle of 15° with a recess of 5mm
- the maximum vertical movement is 5 mm in order to maintain good rigid quality
- joints can be delivered prepared for connection to either asphalt or concrete
- where the transversal slope is 0%, the drainage channel uses a 1.5% slope (design of the EPDM channel)
- the traffic volume is either 60 km/h, 100km/h or 130 km/h
- the finger plates are stressed into position and the bolt holes are filled with high strength epoxy resin
- the cover plates are screwed at the edge profile of the deck side and slid onto the provided space of the edge profile on the abutment side
- the drainage channel is cleaned out as per the suggested construction method (once a year in urban environments)

TES STICK-ON LOOP TRAFFIC MONITORING SYSTEM

TES Non-Intrusive Loop Traffic Monitoring System consist of a dual stick on loop, PADVARK traffic logger, Battery, Bituthene 3000 tape and GSM modem to download data (optional).

The dual stick on loops is a temporary loop covered with Bituthene 3000 or similar tape and the loops can only be used once. Generally, the stick-on loops are 2.3 m x 1 m x 50 mm (nominal dimensions) with twin flex polyvinylchloride (PVC) wires placed on concrete or asphalts pavements.

TES Non-Intrusive Loop Traffic Monitoring Systems are installed over the full width of a roadway on new and existing roads. Site requirements are as specified in Chapter 10 of the **TMH3**.

UL-M 20/10 THIN BITUMINOUS ROAD SURFACING SYSTEM

UL-M 20/10 is a thin bituminous road surfacing system generally laid to a nominal compacted thickness ranging from 20- 40 mm. Principally it consists of a blend of modified bituminous binder Evatech U (EVA), graded crushed stone (aggregates) of nominal size 10 mm and a filler. The UL-M 20/10 is applied by a paver over a tack coat. It is designed to improve skid resistance and where required, reduce permeability.

UL-M 20/10 was developed in the 1980's in France by Enterprise Jean Lefebvre and it carries the British Board of Agrément certification (Roads and Bridges Agrément Certificate No 01/H047). It is extensively used around the world including Europe, USA, and South America. It has successfully been used on a number of roads in South Africa. National Asphalt (Pty) Ltd is licensed to manufacture and install the product in South Africa.

The mix design, manufacturing and application of the product is strictly controlled and under the supervision of an approved competent person and approved by the manufacturer's Technical Manager. The mix proportions may vary slightly from project to project, depending on the traffic, substrate (road base) and the actual properties of the stone received. Aggregates must meet the standard specifications for road works with respect to grading, strength, shape, polished stone value and aggregate/bitumen compatibility etc.

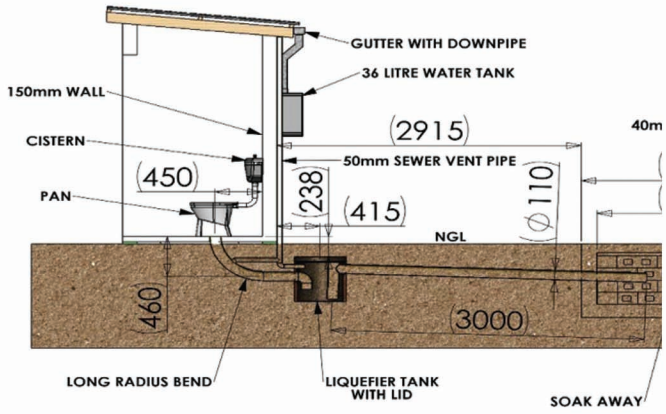
CERTIFICATES GRANTED

ABACUS EZEESPACE BUILDING SYSTEM

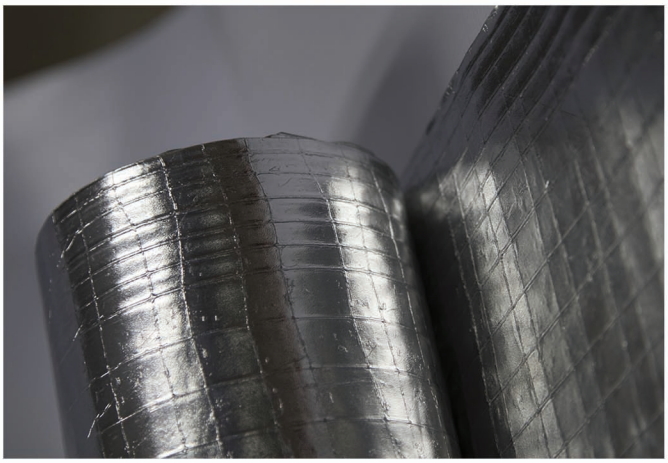
BESTA BOARD BUILDING SYSTEM

BOEN ECOSOLUTIONS BUILDING SYSTEM

BRAVOMAX BUILDING SYSTEM



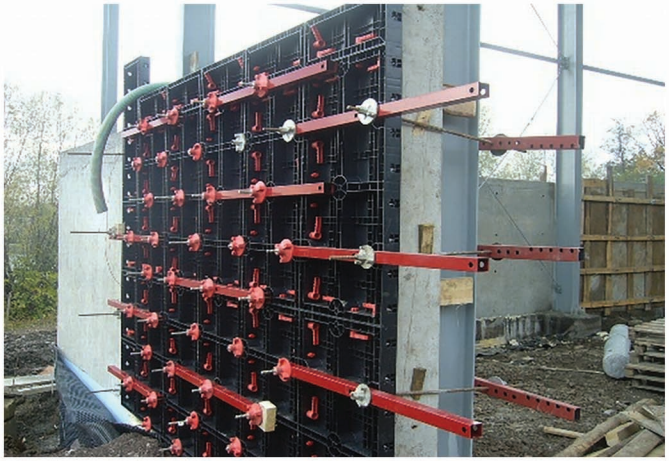
DIRECT SANITATION APPLICATION SYSTEM



DURAFOIL DSD REFLECTIVE ROOF INSULATION FOIL

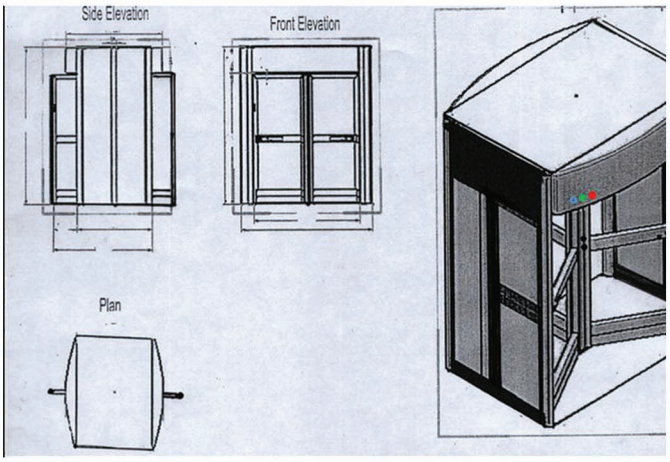
ECOBOND NON-TRADITIONAL SOIL STABILIZER

EVERITE SIPOREX AAC BUILDING SYSTEM



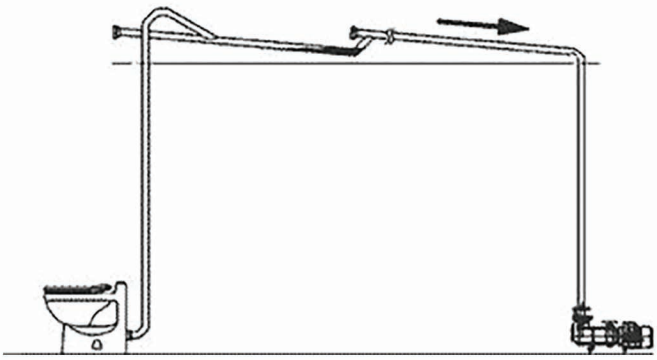
GEOPANEL FORMWORK SYSTEM

GEOPLAST MODULO FOUNDATION SYSTEM



ITAS ACCESS CONTROL DOORS

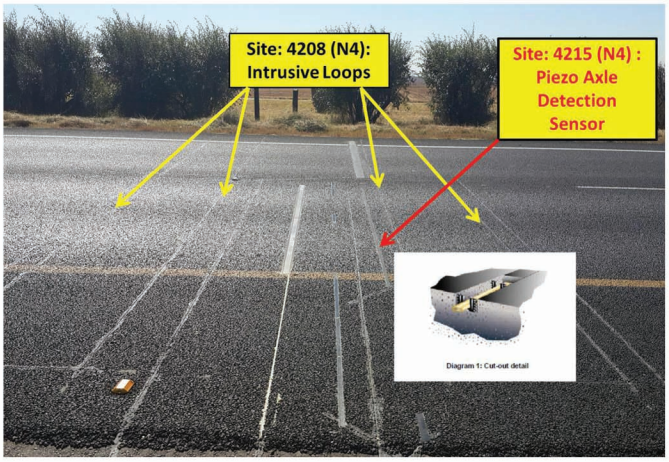
I-WALL BUILDING SYSTEM



JETS VACUUM SANITATION SYSTEM

KWIKSPACE MODULAR BUILDING SYSTEM

MAKORO WATER AND LIQUID STORAGE TANKS



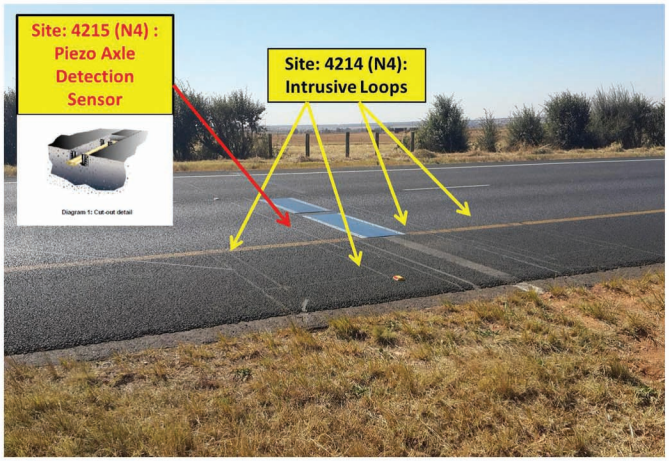
MIKROS DUAL STICK-ON LOOP TMS

PERMANENT DUAL TMS - TELOOP8

PERMANENT DUAL TMS - TELOOP8-F

PERMANENT AXLE TMS - AUTOPIZO8

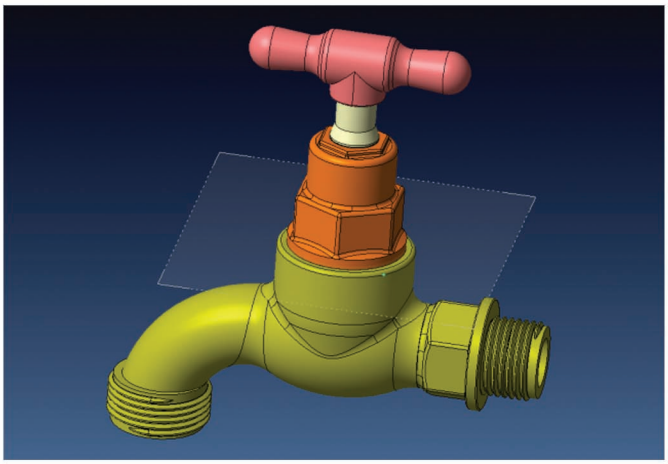
PERMANENT AXLE TMS - PICOTEL8



PERMANENT DUAL TMS - WYPROS I PWIMs

MODULAR FIBRE REINFORCED CONCRETE BUILDING SYSTEM

POLYFORM BUILDING SYSTEM



PRO CLOSE SLIP-CLUTCH GARDEN BIB TAPS

PRO-PHALT INFRARED ROAD REPAIR SYSTEM

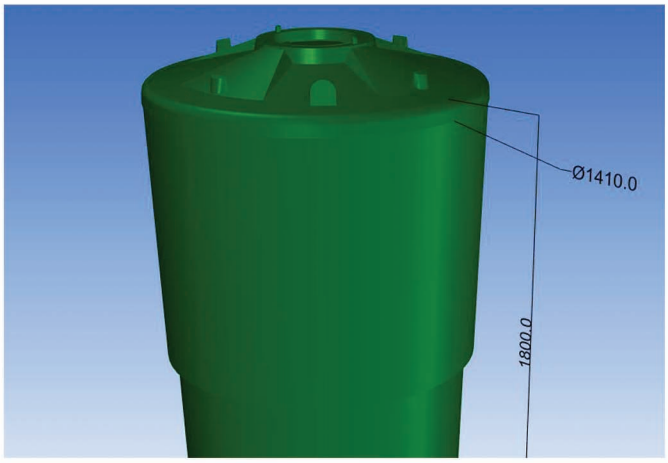
SELCRETE BUILDING SYSTEM

SHOUGUANG PREFABRICATED BUILDING SYSTEM

STERLING BUILDING SYSTEM

SUTHERLAND SHEEN COATING SYSTEM

SUTHERLAND TEX COATING SYSTEM



TCE PLASTIC WATER STORAGE TANKS

TENSA FINGER RSFD BRIDGE DECK JOINT

TES STICK-ON-LOOP TMS

UL-M 20/10 THIN BITUMINOUS ROAD SURFACING SYSTEM

DIRECTORY OF ACTIVE CERTIFICATES

Bridge Deck Joints	Certificate Holder
Thormajoint Bridge Deck Expansion Joint System (DS)	DSC-Zendon cc
Thormajoint Bridge Deck Expansion Joint System	Bridge Jointing & Rehabilitation Contractors
Maurer D80C (FP) Bridge Deck Expansion Joint	DSC-Zendon cc
Maurer Multi-Element Bridge Deck Expansion Joint	DSC-Zendon cc
BSP 80 Bridge Deck Expansion Joint	DSC-Zendon cc
Honel E80 Bridge Deck Expansion Joint	Honel Structural Products (Pty) Ltd
Honel GAM 80-480 Series Bridge Deck Expansion Joint	Honel Structural Products (Pty) Ltd
Febajoint Bridge Deck Expansion Joint	StonCor Africa (Pty) Ltd
Britflex (BEJ) Bridge Deck Expansion Joint System	StonCor Africa (Pty) Ltd
Tensa Finger RSFD Bridge Deck Joint	Bridge Jointing & Rehabilitation Contractors
Ceilings	
Isoboard® Nail Up Insulated Ceilings	Isofoam South Africa (Pty) Ltd
Damp-proofing	
Gundle USB 170 GB Under Surface Bed Membrane	Gundle API (Pty) Ltd
Gundle Gunplas DPC 250	Gundle API (Pty) Ltd
Gundle USB 170 GB Damp-proof Membrane	Gundle API (Pty) Ltd
Gundle Anti-termite Damp-proof Course and Membrane	Novara Profile Extrusions (Pty) Ltd t/a Gundle API
Insulation	
Isoboard® Cavity Wall Insulation	Isofoam South Africa (Pty) Ltd
Isoboard® Inverted Roof Insulation	Isofoam South Africa (Pty) Ltd
Isoboard® Over Purlin Roof Insulation	Isofoam South Africa (Pty) Ltd
Isotherm Thermal Insulation	Brits Textiles, division of Seardel (Pty) Ltd
Isoboard® Over Rafter and Truss Insulation	Isofoam South Africa (Pty) Ltd
Plumbing	
Contactim	Contactim (Pty) Ltd
Geberit HDPE Above Ground Soil	Geberit Southern Africa (Pty) Ltd
Geberit Pluvia Syphonic Roof Drainage System	Geberit Southern Africa (Pty) Ltd
Product	
Calcamite Water and Liquid Storage Tanks	Calcamite Sanitary Services (Pty) Ltd
EcoTanks Water and Liquid Storage Tanks	Ecopolymers cc t/a EcoTanks

Products	Certificate Holder
RotoTank™ Water and Liquid Storage Tanks	Affirm Manufacturing Services (Pty) Ltd
Yebo Water and Liquid Storage Tanks	Quick Traders 1029cc
KRM Water and Liquid Storage Tanks	KRM Plastics (Pty) Ltd
High Density Polymer Envirodoor	Envirosan Sanitation Solutions cc
TCE Plastic Water Storage Tanks	Tariosync (Pty) Ltd t/a TCE Plastics
Makoro Water and Liquid Storage Tanks	Makoro Tank Technologies (Pty) Ltd
Roofing products	
Gundle Gunplas UT 180 Undertile Membrane	Gundle API (Pty) Ltd
Gundle Gunplas UT 250 Undertile Membrane	Gundle API (Pty) Ltd
Monier Roofing Undertile Membrane	Monier Roofing (Pty) Ltd SA
Gundle UT Woven Tile Underlay	Gundle API (Pty) Ltd
Marulelo Roofing Undertile Membrane	Monier Roofing (Pty) Ltd SA
Compactroll Ridge and Hip Capping	Monier Roofing (Pty) Ltd SA
Easyflash	Monier Roofing (Pty) Ltd SA
Spunsulation 3 Roofing Radiant Barrier	Spunbond Holdings (Pty) Ltd t/a Spunchem Interna
Spunsulation 5 Roofing Radiant Barrier	Spunbond Holdings (Pty) Ltd t/a Spunchem Interna
Spunsulation 5 Light Roofing Radiant Barrier	Spunbond Holdings (Pty) Ltd t/a Spunchem Interna
Spunsulation Roofing Undertile Membrane	Spunbond Holdings (Pty) Ltd t/a Spunchem Interna
Spunsulation 4 Contractors Choice	Spunbond Holdings (Pty) Ltd t/a Spunchem Interna
Spunsulation Illumina Roofing Radiant Barrier	Spunbond Holdings (Pty) Ltd t/a Spunchem Interna
Sanitation Products	
Calcamite 1250 litre On-site Sanitary Disposal System	Calcamite Sanitary Services (Pty) Ltd
Calcamite 1500 litre Liquid Capacity On-site System	Calcamite Sanitary Services (Pty) Ltd
Cemforce Easy Loo VIP Toilet System	Cemforce cc
Cemforce Easy Loo Urine Diversion Toilet System	Cemforce cc
SMARTSAN Recycle Digester Sanitation System	Nano Water Technologies Africa (Pty) Ltd
Ventilated Improved Pit and Urine Diversion Toilet System	Envirosan Sanitation Solutions cc
Jets Vacuum Sanitation System	SA Biotech (Pty) Ltd
Direct Sanitation Application System	Sanitas Advanced Technology Sanitation (Pty) Ltd
Thin Bituminous Surfacing Systems	
NOVACHIP Thin Bitumious Surfacing System	Murray and Roberts Infrastructure (Pty) Ltd
UL-M 20/10 Thin Bituminous Road Surfacing	National Asphalt (Pty) Ltd
AquaFRICTION Course Road Surfacing System	Aqua Transport and Plant Hire (Pty) Ltd
FrictionPave: Thin Bituminous Surfacing System	FrictionPave Partnership JV

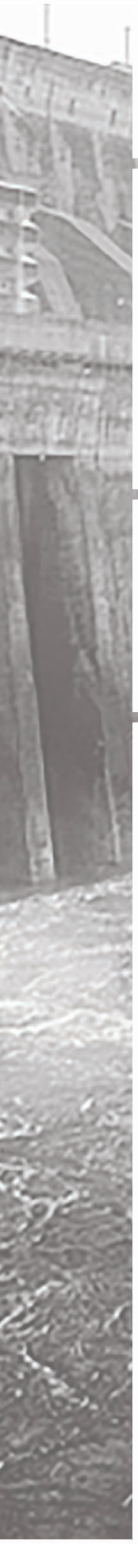
Wall Coatings

	Certificate Holder
Cemcrete Cemwash	Cemcrete (Pty) Ltd
Cemcrete Stipplecrete	Cemcrete (Pty) Ltd
Techfin System	Technical Finishes (Pty) Ltd
Glutone Wall Coating	Technical Finishes (Pty) Ltd
Khusela Emanzini Coating System	Ultraline (Pty) Ltd
Top Paint Waterrepellent Latex Paint	Top Paints (Pty) Ltd
Prominent Paints Waterproofing Wall Coating	Prominent Paints (Pty) Ltd
Weatherprufe Sealcoat Coating System	Market Demand Trading No 263 (Pty) Ltd
Sheerflex Coating System	Dekro Paints (Pty) Ltd
Valamanzi Coating System	Optima Coatings (Pty) Ltd
Optiflash Waterproofing System	Optima Coatings (Pty) Ltd
Plascon Wallseal Coating System	Kansai Plascon (Pty) Ltd
Nucover Wall Coating	Xeracote cc t/a Olympia International Paints
Sutherland Sheen Coating System	O'Grady Coatings (Pty) Ltd
Sutherland Tex Coating System	O'Grady Coatings (Pty) Ltd
Amoriguard Wall Coating System	Amoriguard (Pty) Ltd

Walling and Building Systems

Cavcon Modular Building System	Cavcon Building Systems
National and Overseas Factory Built Buildings	National and Overseas Modular Construction
Goldflex 800 Building System	Group Five Construction (Pty) Ltd
Goldflex 100 Building System	Group Five Construction (Pty) Ltd
FSM Building System	Fabricated Steel Manufacturing Co (Pty) Ltd
Neopor Building System	Khuthala Consulting (Pty) Ltd
Hydraform Building System	Hydraform Developments (Pty) Ltd
Robust Building System	Robust Structures (Pty) Ltd
Aruba™ 2000 Series Building System	Robust Structures (Pty) Ltd
Goldflex 800 Seismic Building System	Group Five Construction (Pty) Ltd
Ikhaya Future House Building System	Ikhaya Futurehouse Systems (Pty) Ltd
Cemforce GRC Building System	Cemforce cc
Ikhaya Future House Double- and Multi-Storey Building System	Ikhaya Futurehouse Systems (Pty) Ltd
Banbric Building System	Banbric Building cc
ITAS Modular Building System	I.T.A Security Co (Pty) Ltd
Alternative Steel Frame Building System	Tower Technology (Pty) Ltd.
Bright-Kid Container Conversions	Breidert Education Development cc
Blast Building System	Didutex (Pty) Ltd
Mi Panel 1 Building System	MiBT SA Pty (Ltd)
Mega Building System	Mega Green Structures (Pty) Ltd

Walling and Building Systems continued	Certificate Holder
Compressed Earth Blocks Building System	Use-It
Concretex Building System	Paveprint cc T/A Concretex
Harmili Building System	Kwikspace Modular Buildings (Pty) Ltd
UCO Solidwall Building System	United Fibre Cement Company (Pty) Ltd
Oceansafe Building System	Exelis Development (Pty) Ltd
Tutungeni Building Systems	Tutungeni Precast cc
Khaya Readykit Building System	Khaya Readykit (Pty) Ltd
Cellular Concrete Building System	NRF housing (Pty) Ltd
RBM Greenbuild Building System	RBM Greenbuild (Pty) Ltd
Uvuyo Building System	Uvuyo Trading 109 (Pty) Ltd
Adventure Shells PVC Building System	Adventure Shells (Pty) Ltd
RPM PHD Building System	Pego Phd (Pty) Ltd
Specialised Insulated Panel Building System	Specialised Panel Manufacturing cc
UkuZwana Building System	UkuZwana Project Management Solutions (Pty) Ltd
Power Profile Building System	Shell Case (Pty) Ltd
Ezee Build Modular Building System	Ezee Build Developments cc
GHS Wall Technology Building System	GHS GMBH
RIC Prefabricated Building System	Rodger Ian Carter's Technical Services (Pty) Ltd
Sterling Building System	Sanjo FabTech Sterling (Pty) Ltd
JK Structure Building System	GIB Developments (Pty) Ltd
Benex Masonry Building System	Garden Cities NPC (RF)
FSM FR Polycore Building System	Fabricated Steel Manufacturing Co (Pty) Ltd
Green Crete Building System	Get Connected Holdings (Pty) Ltd
Besta Board Building System	Fast Track Contracting Africa (Pty) Ltd
Boen EcoSolutions Building System	EcoSolutions (Pty) Ltd
GeoPanel Formwork System	GeoPlast South Africa (Pty) Ltd
Geoplast Modulo Foundation System	GeoPlast South Africa (Pty) Ltd
Shouguang Prefabricated Building System	Shouguang Sunrise Construction Engineering Co., Ltd
Kwikspace Modular Building System	Kwikspace Modular Buildings (Pty) Ltd
Abacus EzeeSpace Building System	Waco Africa (Pty) Ltd t/a Abacus Space Solutions
Abod House Building System	HMR Homes (Pty) Ltd
Selcrete Building System	Hjott South Africa (Pty) Ltd
Everite Hebel AAC Building System	Everite (Pty) Ltd
Besa Building System	Agrément South Africa
Besa 2 Building System	Agrément South Africa
Bravomax Building System	Bravomax (Pty) Ltd
Waterproofing	
Derbigum SP Waterproofing	Derbigum Manufacturing (Pty) Ltd



Waterproofing continued	Certificate Holder
Index Fidia 'P' Roof Waterproofing	ABE Construction Chemicals (Pty) Ltd
Index Testudo 20 Waterproofing	ABE Construction Chemicals (Pty) Ltd

Software	
BSIMAC (Version 9)	Alec Johannsen Consulting Engineers
DesignBuilder (Version 4.0)	Greenbuild Consultants
DesignBuilder (Version 3.1)	Greenbuild Consultants
StarFront Software	Wispeco (Pty) Ltd
IES Virtual Environment Software (Version VE 2013)	Integrated Environmental Solutions(IES) LTD.
Crealco U-Solve Whole Window and Door	Wispeco (Pty) Ltd

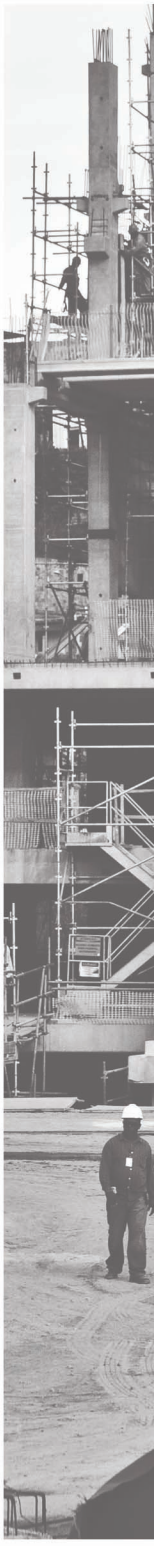
Roads Products	
Enviro Prime	Tarspray cc
Pro-Phalt Infrared Road Repair System	Pro-Phalt SA (Pty) Ltd
Non-tacky Tack Coat (nt-cote)	Tarspray cc

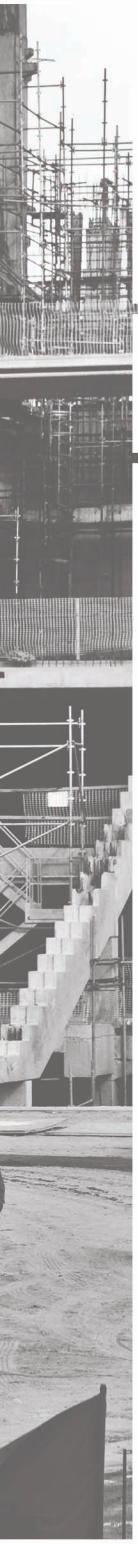
Traffic Monitoring Systems	
Mikros Dual Stick-on Loop Traffic Monitoring System	Mikros Systems (Pty) Ltd t/a Syntell Group Company
Permanent Dual Traffic Monitoring System with TELOOP8	Mikros Systems (Pty) Ltd t/a Syntell Group Company
Permanent Dual Traffic Monitoring System with TELOOP8-F	Mikros Systems (Pty) Ltd t/a Syntell Group Company
Permanent Axle Traffic Monitoring System with AUTOPIZO8	Mikros Systems (Pty) Ltd t/a Syntell Group Company
Permanent Axle Traffic Monitoring System with PICOTEL8	Mikros Systems (Pty) Ltd t/a Syntell Group Company
Permanent Axle Traffic Monitoring System with WYPROS I PWIM	Mikros Systems (Pty) Ltd t/a Syntell Group Company
TES Non-Intrusive Loop Traffic Monitoring System	TES Trust

DIRECTORY OF INACTIVE CERTIFICATES

Bathroom and Toilet Units	Certificate Holder
Rocla Bathroom & Toilet Units	Rocla (Pty) Ltd
Insulation	
Exterior Insulation Facade System	Guy Bright (Pty) Ltd
Products	
Betcrete Polycrete Window Sill	MG Innovation t/a Betcrete
Betcrete Polymer Window and Door Frames	MG Innovation t/a Betcrete
Roofing Products	
Infra-Flash Self Adhesive Sealant	Infraset A Business Unit of Aveng Africa Limited
Cyclo Roof Tiles	Cyclocor (Pty) Ltd
Nam-Tex	Nampak L & CP
Resintile Roof Tiles	Plastiworld Trading (PTY) LTD T/A Resintile
Roofproof 400 Non Woven Undertile Membrane	Astrapak Kwazulu-Natal (Pty) Ltd
Spunsalation 5 Roofing Radiant Barrier	asd
Spunsalation Roofing Radiant Barrier	asd
Wall Coatings	
Brickseal Cementitious Wall Coating	Zambezi Mining Services (Pty) Ltd
Flexiwall Coating System	Duram (Pty) Ltd
PlasterMax	GigaCrete Inc.
Walling and Building Systems	
1DR Build Building System	H W Visser Designing & Planning
CSIR Modular House Building System	CSIR Built Environment
Amsa's Alternative Building System	Arcelor Mittal South Africa Steel Service Centre
Mi Panel 2 Building System	MiBT SA Pty (Ltd)
Amsa's Protea Building System	Arcelor Mittal South Africa Steel Service Centre
Legna Solidwall Building System	Legna Creative Enterprises cc
Cavcon Modular Building System	Cavcon Building Systems
Abkin's J1 Building System (M)	Abkin's Housing System (Pty) Ltd
Abkin's Norman 2 Building System	Abkin's Housing System (Pty) Ltd
Abkin's Simon 4 Building System	Abkin's Housing System (Pty) Ltd
Automapolyblock Building System	Automa Building Products (Pty) Ltd

Walling and Building Systems continued	Certificate Holder
CMA Building Foundation Beams	Concrete Manufacturers Association
Con-Cottage Building System	CONCOR Holdings (Pty) Ltd
Crane Building System	Agrément South Africa
Dri-Block Building System	Dri-Block (Pty) Ltd
Eapro A Building Method	Easec (Pty) Ltd
Eapro M Building Method	Easec (Pty) Ltd
Eco-Construction Building System	MR Gregory Francis Xavier Walker
Estra Building System	Estra Homes (SA) (Pty) Ltd
Formington Phoenix System I	Formington Systems (Pty) Ltd
Formington Phoenix System II	Formington Systems (Pty) Ltd
Frame-Tech Building System	Circle Capital Developments (Pty) Ltd
Gethal Building System	Ceiling Solutions (Pty) Ltd
House-In-A-Can Building System	HIAC Group of Companies
Innovida Building System	Yokoyo Investments (Pty) Ltd
Izoblok Building System	Meeting of Minds cc
Josseph Shoshany Chopsa	Stauch Vorster Architects
K M L Pre-Engineered Homes	Styrox Holdings (Pty) Ltd
Locktite Block Building System	Guy Bright (Pty) Ltd
LSF Building System	Liege Developments & Projects (Pty) Ltd
LTA Rimon	Josseph Shoshany Horizon Homes
M2 Emmedue Building System	Thatch Lock cc
Masonite Hardboard Dry-Fill Building System	Use-It
Matla Housing System	Rocla (Pty) Ltd
MDA Housing System	Michael Dyson Associates Ltd
Megacom Housing System	Megacom Housing (Pty) Ltd
Megacom Mantag Building System	Megacom Housing (Pty) Ltd
MG SIP Building System	Marble Gold 231 Pty (Ltd)
Micro-concrete Cladding Building System	Anton Bonacich cc
Modular Home Building System	Ekhaya Jabulani Housing Projects cc
Panelcast Buildings	Alan Serritslev
Portable Container Building System	Creative Aluminium t/a Merakeng Solutions
RBM Greenbuild Building System	RBM Greenbuild (Pty) Ltd
Riftec Kit House	Tarspray cc
Sandwich Modular Panel Housing System	University of Pretoria
ScipsT Building System	Africa SCIPS cc
Space Frame Construction System	Isofoam (South Africa) (Pty) Ltd
Tronco Building System	Quick Sill cc
Vela Steel Building System	Vela Steel Building System (Pty) Ltd
Vertibar Building System	Kwena ya Sebele Trading Enterprise cc
Waffle-Crete Mantag System	United Fibre Cement Company (Pty) Ltd





Walling and Building Systems continued	Certificate Holder
Wigwam	Freyssinet Posten (Pty) Ltd
Wolfbrick Building System	Kwena ya Sebele Trading Enterprise cc
Wonder Panel Building System	Kwena ya Sebele Trading Enterprise cc
World Housing Solutions Building System	Yokoyo Investments (Pty) Ltd
Yangshu Sandwich Wall Panel Building System	Yangshu Integrated House Building
Zenzele Building System	Provincial Administration: Eastern Cape
Cold Stores	
Isowall System	Isowall Southern Africa (Pty) Ltd
Non-traditional Road Stabilisers	
PC For Roads Non-traditional Soil Additive	Marble Gold 453 (Pty) Ltd t/a PowerCem So

TECHNICAL AGENCY

NOTES

CONNECT WITH US

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