



BUILDING PRODUCT QUALITY PLAN

Version 1.2

Covers CodeMark(s) BCS #1734

**ShangDa New Type Building Materials Ltd
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Policy

ShangDa New Type Building Materials Ltd. (SHANGDA) manufactures and imports the finest quality materials and products for the New Zealand market ensuring the quality of these products are suited to their intended use.

ShanDong Xintuo Building Materials will provide materials and products to our distributors and installers under this Building Product Quality Plan.

Introduction

ShangDa New Type Building Materials Ltd. was formed in February 2016 due to demand for an alternative housing solution which would be more energy efficient, competitively priced and that would be a suitable material used for the building market.

In 2016 we decided that our materials / products needed to have certification from a suitably experienced Certification Body and we asked Building Element Assessment Laboratory (BEAL) to carry out the certification of our products. The certification would demonstrate to councils, clients and our distributors that the materials and products covered by the certificate when installed according to our Scope of Use and Limitations statements, as well as the Technical Manual, would comply with the relevant clauses of the New Zealand Building Code.

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Version Table

Version number	Purpose / Change	Author	Date
1.01	Initial draft shown to line manager	Shitong Liu	23/02/2018
1.02	Consultation draft shown to working group	Shitong Liu	23/02/2018
1.1	Final draft approved by committee	Shitong Liu	23/02/2018
1.2	Final draft reviewed and edited by BEAL Certification Limited	Cameron Lane	22/02/2018

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Reference Documents

1. New Zealand Building Act 2004 and amendments
2. New Zealand Building Regulations & Building Code
3. Compliance documents supplied by the Ministry of Business Innovation and Employment
4. BEAL Certification Standard for a Building Product Quality Plan
5. Suppliers' Technical Literature or documents
6. Accredited test reports supplied by BEAL
7. Trade literature supplied by ShangDa New Type Building Materials Ltd.
8. ShangDa New Type Building Materials Ltd Product Installer Training Manual(s)

Products covered by this BPQP

	Product Name	Scope of Use
1	E-Build System	Masonry building panel system

Note: Other products to be added to this list as they are introduced to the market

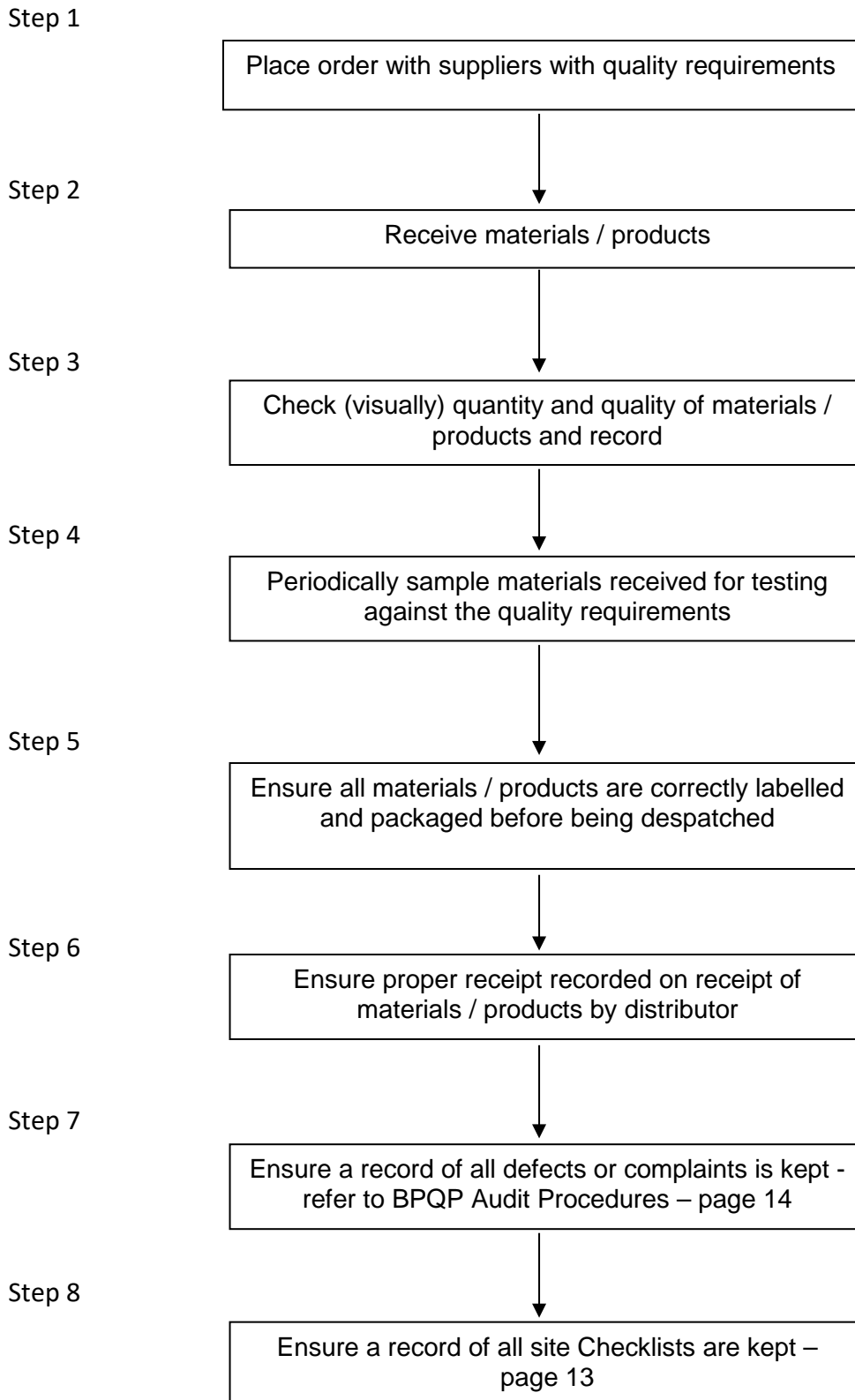
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Key RISKS covered by this BPQP

Key risk issues covering supply, assembly or manufacture, distribution, and installation or application:

- Materials supplied to us not meeting the relevant specification (included with our order)
- Materials supplied to us not properly identified
- Materials supplied to us damaged
- Materials supplied by us to a distributor not properly identified
- Our Technical Manuals not up to date and displaying the version number
- Installation drawings not up to date and displaying the version number
- Training Manual(s) not up to date and displaying the Issue number
- Check List Sheets not being properly completed / filed by the Installer
- An Internal Audit of our BPQP not being carried out on a six monthly basis
- An External Audit of our BPQP not being carried out at least once a year

Flow Chart covering ordering to receipt to distribution to installation



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Product Components, Suppliers, Specifications & Descriptions

1. Specifications of the products manufactured/supplied by us:

For the ShangDa New Type Building Materials Ltd E-Building System – the specification for (each component/product) can be found in the current version of the Company's Technical & Installation Manual.

2. Manufacturer Specifications of the components/products supplied to us:

Components include –

- ShangDa Lightweight Concrete Panel System, comprises of the following
 - Floor Panel (SD/FL120). 120mm thickness. 3000x600mm (L/W). Supplied by ShangDa New Type Building Materials Ltd.
 - Internal Wall Panel (SD/IW90). 90mm thickness. 3000x600mm (L/W). Supplied by ShangDa New Type Building Materials Ltd.
 - External Wall Panel (SD/EW120). 120mm thickness. 3000x600mm (L/W). Supplied by ShangDa New Type Building Materials Ltd.
 - Roof Panel (SD/RF120). 120mm thickness. 3000x600mm (L/W). Supplied by ShangDa New Type Building Materials Ltd.
- ShangDa U Shape Steel Holder (U Steel Card). 40mm deep. 120x70mm (L/W) Supplied by ShangDa New Type Building Materials Ltd.
- Self-Drilling Tapping Screws. 6g x 185mm. Supplied by ShangDa New Type Building Materials Ltd.
- 80mm Anchor Screws. Supplied by Hilti or equivalent.
- Cemix Masonry Mortar Mix. Supplied by Cemix Products Ltd.
- Bostik Alpha Grip Adhesive. Supplied by Bostik New Zealand Ltd.
- Inseal Double Sided Foam Tape. 5mm thickness. Supplied by ACME Supplies Ltd. or equivalent.
- 3M Polystyrene Foam Insulation 78 Adhesive. Supplied by 3M.
- Future Seal Aluminium Foil Tape. 80mm wide. Supplied by TapeSpec.
- Cemix Cemlevel 10. Supplied by Cemix Products Ltd.
- EPS (Expanded Polystyrene). 30mm thickness. Supplied by EPS Foam NZ Ltd.
- H1.2 standard timber battens. 45x45mm (L/W). Supplied by any hardware store.
- Aluminium Angle. 2mm thickness. 45x45mm (L/W). Supplied by Ullrich Aluminium Company Ltd.
- Timber Window Packer. 30x60mm (L/W). Supplied by any hardware store.
- APCO Exterior Plaster System. Supplied by APCO Coatings NZ Ltd.

General Description of Features and Benefits:

ShangDa New Type Building Materials Ltd manufactures a high end, quality, masonry panel systems. These masonry panels are used as part of a cladding system for buildings and for the landscape industry.

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The ShangDa E-Build System is a partition building panel system utilizing floor panels, internal wall panels, external wall panels, and roof panels built into a SED (Specific Engineering Design) structural steel frame that envelopes the building to provide an attractive, light weight, highly durable, sound building solution suited to the needs of residential housing and multi-story dwellings.

Other benefits of the ShangDa E-Build System are;

- A tried and tested product.
- High level of quality bringing incredible realism, enabling more clients to enjoy the beauty and status of their homes.
- Speed of installation assists with project management.
- Lightweight
- 15 year manufacturer's warranty.
- A cost effective cladding and decorating solution.
- Low maintenance.
- Installation service available by approved local distributors.

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Inspection & Testing Requirements

Inspections of Components:

Quality inspections for each component is conducted on receipt from the manufacturer and when supplied in less than the original lot, by the ShangDa New Type Building Materials Ltd dispatch staff. These inspections are made against a written inspection procedure described in this manual.

Testing of Components:

Testing is an essential step in maintaining ongoing and continuous quality.

Samples of ShangDa E-Build System from each batch are taken and tested by the Production Manager before approval is given for acceptance and use in production.

Random samples of the products are tested periodically by BEAL Certification to ensure compliance with the standard.

Testing is to ensure the performance requirements under the BEAL CodeMark Certificate are maintained continuously. These tests are made against a written sampling and testing procedure described in the following Appendices.

<i>SYSTEM COMPONENT</i>	<i>RISK</i>	<i>CHECKLIST / TESTS</i>
Floor Panel (SD/FL120).	Medium	As per appendix C
Internal Wall Panel (SD/IW90).	Low	As per appendix C
External Wall Panel (SD/EW120).	Medium	As per appendix C
Roof Panel (SD/RF120).	Medium	As per appendix C
ShangDa U Shape Steel Holder (U Steel Card)	Low	As per appendix C
Self-Drilling Tapping Screws. 6g x 185mm (depending on supplier)	Low	As per appendix C

Accessories such as tapes, plasters, coatings and the like supplied by proprietary manufacturers shall be subject to periodic requests to prove consistency of quality. Such requests shall be carried out by the certificate-holder and records kept in the BPQP folder.

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Storage and Despatch / Product Recall

Storage Requirements:

- Product is stored in a clean dry area until picked up for delivery to the nominated destination.
- The dispatch freight note is filled out with customer address and products dispatched.
- A copy of the freight dispatch note goes with the product to the customer and the other copies stay in the book for end of the month charge out.

Product Recall

Upon receiving a notice of product falling outside the specification the following action is taken:

- Place all packed product on hold, clearly marking so
- Recall all product that is outside of specification
- Take samples and if possible determine why the product failed.
- Trace back to isolate the failure.
- Take corrective action to prevent future product failure.
- Inform all staff of the action taken.
- Inform clients affected by the recall
- Implement all necessary action – inspect, repair, replace.
- Verify that all actions taken are working.

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Training of personnel:

Distributors – Distributors are to ensure all products must be installed by ShangDa New Type Building Materials Ltd trained and approved installers if the BEAL CodeMark is to apply.

Installers – All applicators are trained and approved and have completed training complying with our BPQP procedures, especially the use of the Checklists described in the Technical Manual and/or in this Building Product Quality Plan.

- A Training Manual describes the training and application of these BPQP procedures
- A record of each trained and approved applicator will be kept in the BPQP.

All staff members are trained in the following areas.

1. Safe work practices
2. Product Training
3. Application of these BPQP procedures and all Checklists.

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BPQP Management & Audit Responsibilities

Management:

- The overall responsibility for ensuring that this BPQP is implemented is the Managing Director, Haining ZHANG.
- The person at head office responsible for carrying out periodic internal audits of this BPQP document and attachments is Shitong LIU.
- Each ShangDa New Type Building Materials Ltd E-Build Systems Approved Installer shall be responsible for the on-site application of this BPQP as it applies to their work and shall be responsible for having periodic reviews of their documentation and diary notes that are related to the BPQP. In addition each ShangDa E-Build System approved installer will complete (for each installation of the ShangDa E-Build System) the checklists provided in the ShangDa E-Build System Technical Manual and provide photos of the various stages of the install.

Audit Requirements

- This BPQP will be reviewed **every six months** at head office by the management;
- Use will be made of the checklist at the back of the BEAL Auditing Services Ltd. Standard document.
- Records of each audit completed will be filed in the BPQP file (folder) under the tab entitled ShangDa E-Build System AUDIT BPQP.
- A copy of each audit record shall be forwarded to the Managing Director as soon as practical.
- Where there is a non-conformance found, a note for the reason shall be written into the checklist.
- Where the non-conformance is seen to be important (such as for a high or medium risk material) then a meeting with the relevant management people shall be held as soon as practical to:
 - a) determine the importance of the non-conformance;
 - b) determine who shall be responsible for correcting the non-conformance;
 - c) determine whether or not there needs to be a correction or addition to the BPQP documents;
 - d) write up a record of when the non-conformance was dealt with and the names of any other parties that may have been involved in achieving the corrective action. These notes should be filed in a manner that enables them to be easily found in the event that there is a repeat of the non-conformance.

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Certificate Holder Notification Responsibilities

- (a) the certificate holder notifies the product certification body in writing of any intended change to any of the following particulars:
 - (i) the name, address, or contact details of the certificate holder:
 - (ii) any address of a location where a certified product is produced or manufactured:
- (b) the certificate holder notifies the product certification body in writing of any intended change, modification, or alteration to any of the following:
 - (i) the certified building method or product:
 - (ii) the method of its production or manufacture:
 - (iii) the product quality plan prepared in respect of the certified building method or product:
 - (iv) the application or installation instructions for the certified building method or product:
 - (v) any documentation relating to the use and maintenance of the certified building method or product:
- (c) if the certificate holder has any reason to suspect that the certified building method or product does not comply with the Building Code, the certificate holder notifies the product certification body in writing of the reason for that suspicion:
- (d) if the certificate holder or the product certification body finds that a certified building method or product that has been released on the market does not comply with the Building Code, the certificate holder discloses that fact in disclosure statements published in a form that is acceptable to the product certification body and to the chief executive:
- (e) if the certificate is suspended or revoked, the certificate holder—
 - (i) notifies all customers to whom the building product/system is supplied.
 - (ii) immediately ceases using the certificate, the mark of conformity, and any reference to the number of the certificate.

Test Report Requirements

Test reports must come from independent laboratories, not from the manufacturer. Laboratories need to meet the requirement of ISO17025, and test reports need to be in an appropriate format and provide suitable content for demonstrating that the product will do what the Building Code requires.

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Appendix A – Component Sampling and Testing Procedure

Floor Panel (SD/FL120)

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book

TESTING: Samples of the floor panels will be tested at least once every third delivery from the manufacturer or, every two years, whichever comes sooner, to ensure compliance.

Internal Wall Panel (SD/IW90)

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book

External Wall Panel (SD/EW120)

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book
4. TESTING: Samples of the floor panels will be tested at least once every third delivery from the manufacturer or, every two years, whichever comes sooner, to ensure compliance.

Roof Panel (SD/RF120)

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book
4. TESTING: Samples of the floor panels will be tested at least once every third delivery from the manufacturer or, every two years, whichever comes sooner, to ensure compliance.

U Shape Steel Holder (U Steel Card)

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book

Self-Drilling Tapping Screws. 6g x 185mm

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book

TESTING: Samples of the battens are tested for tensile strength every third delivery from the manufacturer or, every two years, whichever comes sooner, to ensure compliance.