

# 4284SA SIKA POLYCLAD® BARRICADE EIFS CLADDING

## 1. GENERAL

This section relates to the supply and fixing of the Sika PolyClad® Barricade system based on polystyrene sheets fixed to timber/metal framing on a drained cavity.

### Building code compliance

#### 1.1 DURABILITY

The work covered by this part of the specification, for both design and construction to achieve a durability of 15 years. Refer to BRANZ Appraisal 460.

#### 1.2 ON GOING MAINTENANCE INSTRUCTIONS

Sika Architectures® Maintenance of Coatings product data sheet meets the performance requirements of the NZBC B2 Durability.

### Documents

#### 1.3 DOCUMENTS REFERRED TO

Documents referred to in this section are:

AS 1366	Rigid cellular plastics sheets for thermal insulation - Rigid cellular polystyrene
AS 1366.3	Rigid cellular polystyrene - Moulded (RC/PS - M)
AS 1366.4	Rigid cellular polystyrene - Extruded (RC/PS - E)
AS/NZS 1170.2	Structural design actions - Wind loads
AS 3566	Self-drilling screws for the building and construction industries
NZS 3604	Timber framed buildings
NZBC E2/AS1	External moisture
BRANZ Appraisal 460	

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document.

#### 1.4 MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:

Sika PolyClad® Barricade System  
Sika Architectures® PolyClad® Plaster  
Sika Architectures® Blockbase  
Sika Architectures® PolyClad® Liteplast  
Sika Architectures® Primers/Sealers  
Sika Architectures® Pre-Texture Options  
Sika Architectures® Basecoats  
Sika Architectures® Texture Options  
Sika Architectures® Glaze Finishes  
Sika Architectures® Maintenance of Coatings  
Sika Construction details: PolyClad® Barricade  
BRANZ Appraisal No.460

Materials and execution to Manufacturer's specification except where varied by this specification and supported by architectural detailing.

Copies of the above literature are available from the following website or Sika (NZ) Ltd

Web: [www.architectures.co.nz](http://www.architectures.co.nz)  
Email: [info@nz.sika.com](mailto:info@nz.sika.com)  
Telephone: 0800 745 269  
Facsimile: 0800 745 232

#### 1.5 ABBREVIATIONS

The following abbreviations are used in this specification

EIFS Exterior insulation and finish systems  
EPS Expanded polystyrene

XPS                      Extruded polystyrene

- 1.6            **NO SUBSTITUTIONS**  
Substitutions are not permitted to any part of the specified Sika PolyClad® Barricade system.
- 1.7            **QUALIFICATIONS**  
Use only applicators approved by Sika (NZ) Ltd to apply the exterior wall cladding system. Refer <http://www.architextures.co.nz/contractors.aspx> for approved Sika (NZ) Ltd applicators.

**Documentation**

- 1.8            **FINISH SAMPLE**  
Submit one 300 mm x 300 mm sample of the selected system of each finish texture and colour for review. Obtain signature of acceptance and return to the Sika (NZ) Ltd approved applicator.
- 1.9            **MAINTENANCE INSTRUCTIONS**  
Provide Sika Architextures® maintenance of coatings product data sheet to the owner, prior to practical completion of the contract.
- 1.10          **PRODUCER STATEMENT**  
Sika (NZ) Ltd quality assurance forms to be completed by the approved applicator. Provide a signed producer statement to the owner prior to practical completion of the contract.
- 1.11          **HEALTH AND SAFETY**  
Refer to the requirements of the Health and Safety in Employment Act and OSH: Guidelines for the provision of facilities and general safety in the construction industry. If the elimination or isolation of potential hazards is not possible then minimise hazards in this work on site by using the proper equipment and techniques as required in the MPNZ Painters hazard handbook. Supply protective clothing and equipment. Inform employees and others on site of the hazards and put into place procedures for dealing with emergencies. Obtain from Sika (NZ) Ltd the material safety data sheets for each product. Keep sheets on site and comply with the required safety procedures.

**Warranties**

- 1.12          **MANUFACTURERS WARRANTY**  
Sika PolyClad® Barricade system warrant under normal conditions of use against failure:
- |            |          |   |
|------------|----------|---|
| Materials: | 15 years | when applied in accordance with application and preparation procedures as specified in the Sika (NZ) Ltd Product Technical Data Sheets. |
| Execution: | 10 years |   |
- Provide this warranty on the manufacture's standard form.

**Performance**

- 1.13          **FIXINGS, WIND**  
Design and use the fixings appropriate for the wind zone (R) and topographical classification (T) of this site and building height; as required by NZS 3604 and the wind loads on various wall areas as given by AS/NZS 1170.
- 1.14          **PROTECTION OF NEW PLASTER**  
Confirm the protection systems to be applied to fresh plaster coats. Plastering not to begin until systems are confirmed.

1.15      **INSPECTIONS - MANUFACTURER**  
Allow to inspect the whole of the work at each stage. Determine a programme for inspections including notification when each part and stage of the work is ready for inspection prior to the work commencing. Permit representatives from Sika (NZ) Ltd to inspect the work in progress and to take samples of their products from site.

1.16      **FIRE PROTECTION**  
Sika PolyClad® Barricade system to be separated from heating appliances, flues and chimneys, in accordance with the requirements of NZBC C/AS1 part 9 for the protection of combustible materials.  
Required FRR:    ~ / ~ / ~ / minutes

## **2.            PRODUCTS**

### **Materials**

2.1      **POLYCLAD® PLASTER**  
Fibreglass reinforced, acrylic modified plaster coating containing Portland cement, sand, lime and other admixtures.

2.2      **REINFORCING MESH**  
Akali-resistant fibreglass woven reinforcing mesh.

2.3      **PRE-TEXTURE FINISH**  
Sika Architextures® range of polymer modified cement based texture options. Refer to SELECTIONS for details.

2.4      **PRIMER/SEALER**  
Sika Architextures® range of surface primers and sealers for use with Architextures® coating system. Refer to SELECTIONS for details.

2.5      **BASECOAT**  
Sika Architextures® range of breathable weatherproof base and finish coatings. Refer to SELECTIONS for details.

2.6      **TEXTURE FINISH**  
Sika Architextures® range of acrylic resin based texture options. Refer to SELECTIONS for details.

2.7      **GLAZE FINISH**  
Sika Architextures® range of optional glaze finishes, both clear and coloured, to improve durability, dirt shedding properties or to achieve the required aesthetic finish. Refer to SELECTIONS for details.

### **Components**

2.8      **FIXINGS, TIMBER FRAME**  
40 mm system:    90 mm x 3.55 mm hot-dipped galvanized flat head nails with 40 mm diameter plastic washers.  
60 mm system:    110 mm x 4 mm hot-dipped galvanized flat head nails with 40 mm diameter plastic washers.

2.9      **FIXINGS, STEEL FRAME**  
40 mm system:    75 mm x 8 mm AS 3566 class 3 exterior grade self-tapping steel screws with 40 mm diameter plastic washers.  
60 mm system:    95 mm x 8 mm AS 3566 class 3 exterior grade self-tapping steel screws with 40 mm diameter plastic washers.

2.10     **EXTERIOR CAVITY BATTENS**  
Sika polystyrene grade H, 20 mm x 50 mm x length to match timber framing studs.

- 2.11 POLYSTYRENE SHEET FOR EIFS CLADDING  
40 mm or 60 mm Thick polystyrene sheet: either expanded polystyrene (EPS) to AS1366.3 grade S or grade H or extruded polystyrene (XPS). Refer to SELECTIONS for details.

#### **Accessories**

- 2.12 FLASHINGS AND ACCESSORIES  
Sika proprietary profiles made from rigid uPVC for head, sill, and jamb flashings, corner beads, Z flashings and horizontal and vertical control joint flashings for exterior applications.
- 2.13 EXTERIOR CAVITY BASE CLOSURE MOULDING  
Sika proprietary cavity base closure moulding made from rigid uPVC. Base closure to have 3 mm to 5 mm holes or slots to provide 1000 mm<sup>2</sup> ventilation per linear metre. Upstand to wall 50 mm minimum. Length and width to suit cavity and cladding.
- 2.14 SEALANTS  
Sika Silaflex MS in accordance with the systems manufacturer's requirements.
- 2.15 ADHESIVE  
Sika Nailbond PB in accordance with the system manufacturer's requirements.

### **3. EXECUTION**

#### **Conditions**

- 3.1 DELIVERY  
Keep plaster products dry in transit. Take delivery of plaster products dry and undamaged. Reject all damaged materials.
- 3.2 STORAGE  
Deliver all materials in original unopened packaging with labels intact. Provide dry storage on site, stack carefully, protect from mechanical damage. Keep bagged render off concrete surfaces.
- 3.3 PLASTERING CONDITIONS  
Carry out plastering to manufacturer's specification under conditions which will not adversely affect the finished work.
- 3.4 PROTECT  
Before application of plaster, apply masking film and tape to all joinery, pipes, roofs and all areas likely to be marked by the plaster. Use drop cloths and ground covers to keep the working areas clean. Clean off droppings onto finished work immediately.
- 3.5 SUBSTRATE  
Do not commence work until openings and apertures have been cut, pipes, fixtures, fixing pads and plugs have been fixed and flashings and other preparations are complete. All defects in substrate must be rectified prior to application of plaster coatings. Ensure that backgrounds and adjoining surfaces are, after the preparation called for in this section, is of the required standard by Sika (NZ) Ltd approved applicator.
- 3.6 FLASHING AND DETAILING  
To Sika (NZ) Ltd penetration flashing guidelines. Carry out to the required standard of execution to ensure water does not penetrate.
- 3.7 CONFIRM LAYOUT  
Before commencing work confirm the layout of expansion joints and other visual detailing of the finished work.

#### **Application**

- 3.8 CAVITY BATTENS  
Fix Sika polystyrene battens to studs to achieve a 20 mm minimum thickness drained cavity to NZBC E2/AS1: 9.0 Wall claddings. The battens are fixed by the cladding fixings which will penetrate the wall framing studs over the building wrap. Seal the top of the cavity. Horizontal cavity battens must be no longer than 100 mm and fixed at a 5° slope. Use cavity spacers where fixing is required between cavity battens. Fix additional battens to internal and external corners and around openings to the Sika (NZ) Ltd standard details.
- 3.9 POLYSTYRENE SHEETS FIXED TO CAVITY BATTENS  
Butt-joint the polystyrene sheets over solid continuous timber support to all edges. Nail fix through the cavity battens into the wall framing to manufacturers details.
- 3.10 PENETRATIONS  
Confirm that exterior wall openings have been prepared ready for the installation of all window and door frames and other penetrations through the cladding. Required preparatory work includes the following:
- wall cladding underlay/building wrap to openings finished and dressed off with flexible flashing tape ready for the installation of window and door frames and other penetrations.
  - installation of window and door joinery.
  - installation of flashings (those required to be installed prior to installation of penetrating elements).
  - where electrical cables pass through cladding, put into conduit to ensure that there is no direct contact with the polystyrene.
- 3.11 FLASHING AND ACCESSORIES  
Fit flashings to jambs and sill on recessed joinery using the manufacturer's proprietary flashings. Reinforce external corners and bottom edges of polystyrene sheets with uPVC angles and channel extrusions. Fit joinery heads with a head flashing (if not protected by boxed eaves or other protection).
- 3.12 CAVITY BASE CLOSURE MOULDING  
Fix to the bottom wall plate uPVC cavity base closure moulding.
- 3.13 MOVEMENT CONTROL JOINTS  
Incorporate in accordance with the design information supplied by the manufacturer. Control joints to be positioned over solid timber backing and shall be provided on all walls over 20 metres in length or over 6 metres high, at abutments to different cladding types, where cladding covers structural materials, and over a movement joint in the underlying framing. Confirm locations in writing to the owner before work commences.
- Finishing**
- 3.14 BASE PLASTER AND MESH COAT  
Apply 2 coats of PolyClad® plaster to the prepared substrate by steel trowel at a total thickness of 5 mm minimum. Embed fibreglass mesh into the wet plaster. Overlap each successive length by 30 mm minimum. Apply diagonal reinforcement strips at all corners of windows, doors and other exterior openings.
- 3.15 PRE-TEXTURE FINISH  
Apply Sika Architextures® Pre-Texture option to selected texture, using Sika (NZ) Ltd recommended techniques and thicknesses. Refer to SELECTIONS for details.
- 3.16 CURE FINISHES  
Cure and protect from rapid drying in accordance with Sika (NZ) Ltd requirements.
- 3.17 PRIMER/SEALER  
Apply selected primer/sealer as per Sika (NZ) Ltd requirements.

- 3.18      **BASECOAT**  
As soon as the cement plaster finish is dry enough to accept it apply selected Sika Architectures® Basecoat to Sika (NZ) Ltd requirements. Refer to SELECTIONS for details.
- 3.19      **TEXTURE FINISH**  
Apply Sika Architectures® selected texture finish to Sika (NZ) Ltd recommended techniques and thickness. Refer to SELECTIONS for details.
- 3.20      **GLAZE FINISH**  
Apply selected glaze finish as per Sika (NZ) Ltd requirements.

### **Completion**

- 3.21      **CLEANING**  
Remove debris, unused materials and elements from the site relating to the plaster system application. Replace damaged, cracked or marked elements. Leave the whole of this work to the required standard.
- 3.22      **FINAL INSPECTION**  
A final inspection by Sika (NZ) Ltd or the authorised applicator of the entire finished cladding to take place immediately after completion of the insulating wall cladding work and any defects or subsequent damage made good immediately.

## **4. SELECTIONS**

- 4.1      **CAVITY BATTENS**  
Brand:                Sika (NZ) Ltd  
Type/grade:        Polystyrene grade H  
Size:                 20mm thick x 50 mm wide
- 4.2      **EIFS BASE BOARD**  
Brand:                Sika (NZ) Ltd  
Thickness/grade:  ~ mm/ ~ grade
- 4.3      **FIXINGS**  
Framing:            ~  
Fixings:             ~  
Washers:            ~
- 4.4      **FLASHINGS AND ACCESSORIES**  
Items:                Sika UPVC ~
- 4.5      **REINFORCING MESH**  
Brand:                Sika (NZ) Ltd  
Type:                 ~  
Grade/weight:     ~
- 4.6      **BASE COAT PLASTER**  
Brand:                PolyClad® Plaster
- 4.7      **PRE-TEXTURE FINISH**  
Brand:                Sika ~  
Finish texture:     ~
- 4.7      **PRIMER/SEALER**  
Brand:                Sika ~
- 4.8      **BASECOAT**  
Brand:                ~  
Coats:                100 microns minimum dry film thickness  
Colour:              LRV 40% or greater

- 4.9 TEXTURE FINISH  
Brand: Sika Architextures®  
Texture ~
- 4.10 GLAZE FINISH  
Brand: Sika Architextures®  
Type: ~
- 4.11 SEALANT  
Brand: Sika Silaflex MS
- 4.12 ADHESIVE  
Brand: Sika Nailbond PB