

Specification Ref: SP_20-12-09 10588529-2IS
Description: StoRend Flex-Ventec_A_Board-StoVentec-R-A-StoSilco_K1.5
Project Name: 32-34 Lithos Road
Project Address: Swiss Cottage, London NW3 6BF
Client: MEPK Architects
Date: 9th December 2020
Project Manager: Ian Sired 07894 613567

M20 PLASTERED/RENDERED/ROUGHCAST COATINGS

SPECIFICATION OF MATERIALS

For system application details, refer to the corresponding Sto Method Statement before submitting a tender.

Sto Ltd provides a range of high performance render systems comprising levelling coats, reinforcing render and decorative finishes.

StoRend Flex

A highly robust and crack resistant render system incorporating Sto Armat Classic Plus, a fibre reinforced, cement free acrylic reinforcing render in combination with specially impregnated non-degradable Sto Glass Fibre Mesh to provide an exceptional level of crack and impact resistance, for use on existing flat surfaces or onto StoVentec Render Carrier Board. StoRend Flex is particularly recommended for use with the StoVentec rainscreen façade system (See section H92)

Basic System Components:

Render Carrier: StoVentec A render carrier board

Fixings: Sto Façade Screws FPS 5.5 x 24mm A2 T25 (for Aluminium)

Accessories: Sto PVC Mesh Angle beads

Accessories: Sto Armour Angle

Accessories: StoSeal Joint Sealing Tape Lento 15/2-5, 15/5-12 or 25/9-18.

Accessories: Sto Edge Protection Profile – PVC.

Accessories: Sto-Ventilation Profile 40 x 100mm – Aluminium.

Accessories: Sto-Roof Vent Profile – PVC.

Accessories: Sto-Expansion Joint Profile Type 'E'.

Accessories: Sto-Expansion Joint Profile Type 'V'.

Reinforcing Coat: StoArmat Classic Plus

Reinforcing: Sto Glass Fibre Reinforcing Mesh

Finish: StoSilco K

StoSilco renders contain a minimum of 20% silicone resin content by mass of the binder.

Note: The above are standard products and accessories used with this system. Refer to construction issue drawings for information regarding the requirement for other beads / trims in specific locations.

Manufacturer:

Sto Ltd, 2 Gordon Avenue, Hillington Park, Glasgow G52 4TG.
Tel: 0141 892 8000 Fax: 0141 404 9001
Email: info.uk@sto.com Web: www.sto.co.uk www.sto.ie

Substrate / Background:

StoVentec Façade Rainscreen Cladding system with Stainless steel & aluminium subconstruction. See section H92

Render carrier:

StoVentec A render carrier board – manufactured from 96% expanded glass granulate using entirely recycled glass combined with epoxy resin binder and with a glass fibre mesh laminated on both sides providing additional strength, suitable for use on buildings with a floor height up to and exceeding 18 m from ground level. Reaction to fire classification A2-s1, d0 in accordance with EN 13501-1.

NOTE:

Cavities behind the StoVentec A render carrier board should be ventilated to avoid the possibility of moisture build up and subsequent decay of the supporting structure.

StoVentec A render carrier board is manufactured in two standard sizes of 12mm thickness:

1200mm x 800mm x 12mm (0.96 sq. metres).

2400mm x 1200mm x 12mm (2.88 sq. metres).

StoVentec A render carrier board fixed to aluminium support rails as part of the StoVentec Façade rainscreen cladding system. Required fixings are as follows:

Aluminium: Sto-Façade Self-Drilling/Tapping Screws, FPS 5.5 x 24 mm, A2 T25

Sto-Façade screws shall be applied as follows:

12/m² in normal zones (supports at 600mm centres)

19/m² to 29/m² in rim zones - areas of wind suction between -1.2 and -2.6kN/m² – generally at external corners (supports at either 600mm or 400mm centres)

28/m² to soffits (supports at 400mm centres),

See Sto Standard Drawing Nos. SVA / SVT 01, 02 & 03 for fixing options / layouts.

Ensure the support framework onto which the StoVentec A render carrier board is to be fixed is correctly set out and securely fixed prior to commencing installation. Vertical supports behind board joints must have a minimum width of 80mm to allow correct positioning of fixings.

All aluminium and steel supports (except vertical 'T' & 'L' profiles as part of a StoVentec R rainscreen system) shall have Sto Thermal Separation Tape applied to all surfaces where the StoVentec A render carrier board is to be applied.

Reinforcing coat:

Sto Armat Classic Plus cement-free, fibre-reinforced acrylic reinforcing coat. Thickness to be such to ensure the reinforcing mesh is fully embedded and a level surface is provided. (Minimum 3mm).

Alternative product suitable for use during the winter season:

Sto Armat Classic Plus QS – can be used in temperatures from +1°C to +10°C (max. +15°C) and relative humidity of up to 95%.

Reinforcement:

Sto Glass Fibre Reinforcing Mesh with symmetrical interlaced glass fibre made from twisted multi-end strands, styrene butadiene coated to provide a high resistance to alkali attack and is manufactured so as to prevent laminar movement and deformation.

For applications in high traffic, vandal prone and anticipated impact areas additional reinforcement shall be Sto Armour Mesh - a specially developed heavy duty, double strand, interwoven glass fibre mesh styrene butadiene coated.

Areas where Sto Armour Mesh is to be applied shall be clearly defined either within the contract documentation or marked on construction drawings.

Priming Coat:

Not applicable

Render / Finish:

StoSilco cement free silicone resin render.

StoSilco renders contain a minimum of 20% silicone resin content by mass of the binder.

Alternative product suitable for use during the winter season: StoSilco QS – can be used in temperatures from +1°C to +10°C (max. +15°C) and relative humidity of up to 95%. Do not mix standard and QS grade of the same material type on the same elevation.

Thickness:

1.5mm

Texture:

K – Stippled.

NOTE: Where the colour specified below is in the C2, C3 or C4 categories, it is advisable to have the preceding coat tinted to the same colour reference as the finish colour.

Colour(s):

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PLEASE NOTE:

Due to the natural chalking effect of dark or intense coloured renders, and to aid the appearance of colour consistency, it is either essential or strongly advised that such renders be overpainted with a compatible Sto façade paint as follows:

Essential: Colours of 15% light reflectance value (LRV) or less, or from C3 and C4 colour charge bands.

Strongly recommended: Colours between 15% and 20% LRV.

It is also strongly recommended that any render with 20% LRV or less, have a grain size of 1.5 mm or greater.

Consult with Sto Ltd for details of colour options and to obtain samples.

Accessories:

Sto PVC Mesh Angle beads

Sto Armour Angle

Sto-Seal Joint Sealing Tape Lento compressible waterproof sealing tape, available in either 15/2-5, 15/5-12 or 25/9-18 sizes.

Sto Edge Protection Profile – PVC.

Sto-Ventilation Profile 30 x 40mm / 40 x 100mm – Aluminium.

Sto-Roof Vent Profile – PVC.

Sto-Rain Repelling Profile – PVC.

Sto Expansion Joint Profile Type 'E'.

Where installed vertically, Sto-Expansion Joint Profile type 'E' may be either left open (as a shadow gap), enclosed with Sto-Expansion Joint Cover E or filled / sealed with Sto-Expansion Joint Tape sized to suit the joint width.

Where installed horizontally, Sto-Expansion Joint Profile type 'E' must be either covered with the Sto-Expansion Joint Cover E or filled / sealed with Sto-Expansion Joint tape of the appropriate size to suit the joint width.

Sto Expansion Joint Profile Type 'V' (for use at internal corners).

Sto-Expansion Joint Profile type 'V' may be either left open (as a shadow gap), enclosed with Sto-Expansion Joint Cover V or filled / sealed with Sto-Expansion Joint Tape sized to suit the joint width.

Consult with Sto Ltd for recommendations and details.

Samples:

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SAMPLE(S):

Provide sample(s) of

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Obtain approval before starting work.

Keep sample(s) available on site throughout the contract for inspection/comparison purposes.

General: Once samples of coatings have been approved do not change type or proportion of constituent materials. Ensure that supplies and batch numbers of materials are sufficient to give consistent uniformity of colour. Ensure uniformity of texture during application.

Cold weather:

497

Do not use frozen materials or apply coatings on frozen or frost-bound substrates.

497

Do not apply when the air and / or substrate temperature is below 5 degrees centigrade. Maintain temperature of work above freezing until the material has fully set.

Suitability of Substrates:

510

Substrate shall be structurally sound, and free from cracks and gaps.

510

Substrate shall be of sufficient flatness / regularity to allow the finished application to be completed to the required tolerances.

510

Substrate shall be free from dirt, oil, dust, efflorescence, mould, algae and other deleterious materials.

510

The cutting, chasing, fixing and making good of conduits, service penetrations, etc. should be completed prior to commencement of the works.

Beads / Stops / Accessories:

Product reference:

Sto Edge Protection Profile / Aluminium Ventilation Profile / Roof Vent Profile / Rain Repelling Profile / Stop / Movement beads.

Sto PVC Mesh Angle bead to external arris.

Sto Armor Angle to internal arris.

Material: PVC.

Application:

Provide profiles/beads/stops at all arris and stop-ends except where specified otherwise. Cut neatly using the longest possible lengths and form mitres at return angles. Plumb, square and true to line and level, ensuring full contact of wings with the StoVentec Render carrier Board.

Movement joints:

All movement joints and/or shrinkage zones within the structural substrate must be

replicated in the StoVentec Render Carrier Board and subsequent render coatings. Create horizontal movement joints in the system at floor levels where timber frame shrinkage / settlement will occur and/or wherever else there are movement joints within the structure. Consult with Structural engineer or frame specialists for locations of joint(s) and extent of movement.

The maximum dimension for installation of StoVentec render carrier board without a movement joint is 25 metres, measured vertically and/or horizontally.

Joints will comprise clear separation of board and sub-construction, with edges of board protected with suitable profiles, all as Sto Ltd details.

Application generally:

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Apply coatings firmly to achieve good adhesion, and in one continuous operation between angles and joints.

Appearance of finished surfaces shall be even and consistent, free from rippling, hollows, ridges, cracks and crazing.

Finish to a true plane, to correct line and level, with angles and corners to right angles unless specified otherwise, and with reveals, heads, etc. plumb / level and square.

Prevent excessively rapid or localised drying out of cementitious coats.

Dubbing out rendering:

Not applicable

Undercoats generally:

Rule to an even surface. Quality of application will have a direct bearing on the visual appearance of the finished render.

Finish coat:

Even texture to specification.

Curing and drying:

880

General: Prevent premature setting and uneven drying of each coat.

Curing coatings: Keep each cementitious coat damp by covering with polyethylene sheet and/ or spraying with water if prevailing conditions are likely to result in accelerated drying.

Curing period (minimum): Consult with Sto for recommendations and details.

Final coat: Hang sheeting clear of the final coat.

Drying: Allow each coat to dry thoroughly, with drying shrinkage substantially complete before applying next coat.

Protection and Cleaning: Adequately protect newly applied external coatings against frost and rain in accordance with Sto Winter Working Policy. Consult with Sto Ltd for guidance on cleaning and protection.

General:

All installations of Sto Ltd materials in the UK to be carried out by and/or supervised by applicators registered by Sto Ltd.

Additives:

Sto Ltd products are not to be altered with any additives, except for small amounts of clean water as directed on the label. Antifreeze, accelerators, rapid binders etc. are not to be used under any circumstances.

Setting Out:

Establish a horizontal line at the base of the substrate. After fixing vertical supports at the required centres, securely fix StoVentec Render Carrier using the specified screw fixings.

Install Sto PVC edge protection / ventilation / roof vent / profiles and/or StoSeal sealing tape as necessary to interfaces.

Consult with Sto Ltd for recommendations and details.

Inspection of Completed Installation

As soon as possible after completion of the work and before removing scaffolding, carry out an inspection with the CA to identify any defects.