



Joinery specification for ABODO Vulcan Windows and Doors

Manual spray Primer / Mid-coat / Topcoat

Sheen choice;

Rubbol WF3311 03 25 - Low sheen

Rubbol WF3311 03 35 - Mid sheen

Rubbol WF375 -high sheen

Key points to consider.

- **The design, construction, glazing and location of the finished items.**
- **Shade choice/durability of near clear finishes**
- **The correct use of a suitable adhesive**
- **Application and drying conditions**
- **The use of a suitable biocidal base stain ** see manufactures note.**
- **The use of a suitable deluge primer**
- **The use of suitable end grain and V joint sealers**
- **Drying conditions and times between coats**
- **Curing time before installation**
- **On site storage conditions prior to installation**
- **Cleaning and maintenance regime after installation**

Prepared September 2023



EXTERIOR JOINERY ITEMS Windows & Doors Manufacture from ABODO Vulcan

Manufacture's overview- ABODO Vulcan Joinery is created from thermally modified New Zealand plantation timber 'Radiata Pine' and engineered with an optional vertical grain construction for superior weathering characteristics. The thermal modification process combined with lamination means Vulcan Joinery has enhanced stability, reduced resin content, is a beautiful homogenous brown colour, and is naturally durable so does not require any chemical preservatives. An excellent choice for windows, doors and interior joinery

Specification for Professional Use with AAA pump system 'air assisted airless spray'.

Opaque/solid colour - Colour TBC; For maximum durability seek manufacturers advice on colour choice.

This spec should be read in conjunction with the relevant Sikkens Joinery guide and the relevant product TDS.

DESIGN / TIMBER CONDITION

All joinery should be designed, constructed, coated, glazed, stored and installed in full accordance with BS/EN644; 2012.

ABODO Vulcan is delivered with a low moisture content. This allows Vulcan to be processed into products for application directly after being delivered. A measurement showing a moisture content of Approx. 7% MC (+/-2%) at time of dispatch. Readings outside these parameters please contact the timber supplier.

All surfaces should be clean and free from grease, dirt and dust prior to coating.

SURFACE PREPARATION:

N.B. The thermal modification process gives the timber natural durability and resistance to decay. However, if additional biocidal protection is required the use of our WP 567 can be considered and has resistance to the onset of the disfigurement fungi known as 'Blue stain / rot protection'. Use Sikkens Cetol WP 567 BPD contains a biocide with tested efficacy against this.

N.B. Ensure any preservative pre-treatments are fully dry before overcoating with any coating system.

Note: We do not recommend the use of shellac knotting beneath a semi-transparent woodstain system; however, consideration may be given to its use beneath an opaque system Seek manufacturer's advice on suitability with timber type and this specification.

NB; this specification cannot guarantee against the discolouring effects of knots, natural timber extractives and/or potential blistering from resin or gum exudation.

Fixing (nail/screw) holes/small defects – Exterior stopper or similar (seek manufacturers advice)



Where applicable, fill small surface defects and fixing holes slightly “proud” with a suitable exterior wood filler/stopper designed for use under an opaque coating system.

Allow to dry fully.

Rub down with a fine grade silicon carbide paper in the direction of the grain. Do not break through the surface of the surrounding woodstain coating system. Remove all dust.

Large surface defects - Sikkens Componex WR (Primer and Filler) or similar (seek manufacturers advice)

Where applicable, fill surface defects greater than 5mm in depth, including large knots that have been removed, with Sikkens Componex WR (2-pack) Filler. Masking Tape should be applied around the defect. Apply Componex WR Primer (2-pack) to areas to be repaired. Allow to dry for at least 10 minutes before filling with Sikkens Componex WR Filler. Use a filling knife to achieve a smooth, even finish, removing any surplus while still wet. Remove masking tape before Componex WR Filler has cured. Allow to cure (minimum 3 hours). Rub down with a medium grade (P120), abrasive paper to provide a key. Remove all dust. *Note: For optimum performance Sikkens Componex WR Primer and Filler should be used on bare timber.*

APPLICATION: All coats

Conditions during application;

- Material temperature should be a minimum of 15°C
- Substrate temperature should be a minimum of 15°C
- Air temperature during factory application should be a minimum of 15°C
- Relative humidity approx. 50-65% RH.

Primer

Sikkens Rubbol WP198– first/primer coat – Use undiluted- Spray by Airless or A.A.A pump system.

Apply evenly by air-mix spray system approx. 150-175 micrometres WFT.

Allow a minimum drying time of 4-6 hours between coats in normal drying conditions. If using as an anti-tannin blocker this is better obtained by overnight drying.

*See note below on drying conditions

END GRAIN / V JOINTS – Sikkens Kodrin WV456 Endgrain Sealer/ Kodrin WV472/WV457

Seal exposed end grains with Sikkens Kodrin WV456. Apply to saturation using a small stiff bristle brush, or small filling knife. Allow to become transparent before overcoating (typically 2 hours). Apply two coats of end grain sealer within the system, allowing full drying time between coats.



Where applicable apply a thin layer of V joint sealer to V jointed areas only. Work well into joint and allow to dry to a transparent appearance before overcoating.

N.B. Kodrin WV472 should not be used as a caulk to fill gaps.

N.B Failure to ensure sealers are not fully dry before overcoating may cause subsequent coats to crack.

Midcoat

Note the 1st coat of Midcoat can be substituted for an additional coat of Primer WP198 and used in accordance with the previous instructions.

Sikkens Rubbol WF3311-03- XX - Mid coat- Do not thin.

Apply one full coat of the above to all primed surfaces by air assisted airless spray to an approximate 150-175 micrometres WFT, paying particular attention to end grains and difficult to access recessed areas.

Allow a minimum drying time of 6 hours between coats in normal drying conditions.

*See note below on drying conditions

Topcoat

Sikkens Rubbol WF3311- 03-XX Final coat - Do not thin.

Apply one full coat of the above to all timber surfaces by air assisted airless spray to an approximate 150-175 micrometres WFT paying particular attention to end grains and difficult to access recessed areas.

Allow a minimum drying time of 6 hours between coats in normal drying conditions.

*See note below on drying conditions

Other Coating for consideration

We have other Sikkens products suitable for ABODO, depending on your methodology and production processes such as:

- Aqua Primer 256 – 2K primer - Sikkens Rubbol WP 151
- Sikkens Rubbol WF 1900-02 – Dipping white primer
- Sikkens Rubbol Primer / Micoat WM2980-03

DENIBBING

Where applicable denibbing should be carried out in the direction of the grain using a fine grade of paper/pad (i.e., P360). Take care not to damage the coating layer particularly around edge detailing. Remove all dust.

Allow a minimum drying time of 4-6 hours between coats in normal drying conditions.

See note below on drying conditions.



APPLICATION– General

All coatings should be applied all round- to all areas, even those which will be hidden once installed. It is recommended that full end grain sealing and overcoating is fully carried out during factory application, even where there is a requirement to cut joinery to size during installation. On site alterations will require touch up with the full system.

DRYING CONDITIONS

After each coating application; Allow coated joinery to stand for 10-15 minutes in ‘flash off’/ “dwell area” area; i.e., Ambient temperature, No air movement, Medium/High humidity. After ten minutes the coated timber should be moved to a dedicated drying area e.g.

- Minimum air temperature 20 degrees Centigrade
- Maximum Relative Humidity 65%
- Minimum movement of air 0.5 metres per second
- Minimum air exchange of 15 per hour
For a minimum of 4-6 hours- unless otherwise indicated

N.B. Failure to ensure effective drying between coats (inc. the effects of over application) may detrimentally affect the overall performance of the system, particularly during the early weeks after application.

FACTORY GLAZING

It should be noted that the glazing bead system, particularly the bottom horizontal bead, will be subject to high levels of moisture and weathering. A fully coated timber bead system will require more frequent maintenance than other areas of the joinery. The bottom bead should be a vented aluminium bead, fitted tight against the jambs with suitable end caps. The bottom joints of all vertical beads must be designed to ensure that there is no capillary action and moisture uptake (angled and cut slightly short). The use of a full powder coated aluminium bead system is recommended where possible. Fracturing of the applied coating system should be avoided during the fixing of glazing beads. Consideration should be given to secure fixing by clip or invisible pins. Ensure that a suitable protective capping is applied over the pins and that all faces, particularly end grains are appropriately sealed. Effective sealing between glass and bead should be carried out using a suitable elastomeric glazing sealant.

HANDLING/DELIVERY

Freshly coated joinery should be given at least 48 hours further drying time (see drying conditions above) before wrapping for despatch. This period should be extended up to one week during cold periods. Care must be taken to avoid any handling/transit/storage damage, we strongly advise the use of protective wrapping on all joinery items, cover strips and trims; this is to remain undamaged until installation begins. Joinery items should be stacked in a way to minimise the weight placed upon them and to maximise the airflow between the pieces. The use of carefully placed ‘spacers’ is strongly recommended. Coated faces should not be placed together.

Vulcan Joinery



SITE STORAGE

All components must be stored under cover, preferably inside a ventilated building with full airflow accessible to all parts of boards. Any protective coverings should be removed when/where conditions permit and replaced when necessary. In the event of outside storage, they must be kept clear of the ground on level bearers and protected against dampness and direct sunlight by a tarpaulin or suitable protective cover. There must be space for air circulation around and between components and any protective coverings should be removed when/where weather conditions permit and replacing when necessary. Consideration should be given to the environment and conditions that the recently coated joinery is subjected to. Adverse weather conditions, especially heavy rainfall and frost, may have a detrimental effect on the freshly applied coating system and the joinery items themselves, particularly during storage.

NEW BUILD PROJECTS

NB. The moisture rich conditions arising during the construction and drying out phases of new build projects may place severe stresses on the joinery item and coating system. Consideration should be given to these factors when timing the delivery, storage and installation of new, freshly coated joinery.

INSTALLATION

All joinery is to be installed and soundly fixed in accordance with the suppliers' instructions, avoiding any damage to the joinery and its coating system. It is recommended that an appropriate damp proof membrane/system is used where applicable and that joinery is not in direct contact with exterior walls, render or plaster, particularly during the drying out phase.

All cut ends, including hidden joints, should be effectively sealed with the full system including end grain sealer.

Consideration should be given to the environment and conditions that the recently coated joinery is subjected to. Adverse weather conditions, especially heavy rainfall and frost, may have a detrimental effect on the freshly applied coating system and the joinery items themselves, particularly prior to installation.

Effective Sealing with an appropriate elastomeric sealer between wall and joinery is recommended.

MAINTENANCE

Ensure all damage during transit or installation is repaired. Ensure all surfaces are cleaned and free from installation or building debris. The application of Sikkens 'maintenance milk' product is strongly recommended after installation and an annual treatment thereafter is advised. Expected durability periods of factory applied coatings will vary and are dependent on the level of weathering the joinery is exposed to, the type of coating used and the design of the joinery and surrounding building. A full maintenance specification is available for all coating systems. An annual inspection is recommended to assess joinery and coating condition. A simple annual clean with a mild detergent and warm water solution is recommended. Where applicable, the annual use of Sikkens Maintenance Milk is recommended. See Sikkens maintenance information sheet for further maintenance details.

Further useful information and guidance can be found the TRADA booklet "High Performance Wood Windows" by Patrick Hislop BA (Hons Arch) RIBA. Contact details: 44(0)1494-569600 or www.trada.co.uk



Recommended Coating Systems

A range of factory base stains, primers and durable top coats is available from Akzo Nobel Industrial Coatings Ltd., in various colours and sheen levels. Compatible brush applied maintenance coating systems and related products are also available from the Sikkens Joinery Team. Every care is taken to ensure that the information provided in this specification is accurate. For further information contact a member of the Sikkens Joinery Team. The information is correct at the date of issue, September 2023
<https://www.sikkens-wood-coatings.com/> Please refer to the "General Information" page which should be read in conjunction with this specification before commencing work.

GENERAL INFORMATION PAGE	
General	Manufactures overview - Vulcan Joinery is created from thermally modified New Zealand plantation timber and engineered with a vertical grain construction for superior weathering characteristics. The thermal modification process combined with lamination means Vulcan Joinery has enhanced stability, reduced resin content, is a beautiful homogenous brown colour, and is naturally durable so does not require any chemical preservatives. An excellent choice for windows, doors and interior joinery.
Timber selection	Although ABODO is certified and tested to achieve Class 1 Durability against decay, consideration should be given as to the use of our WP 567 biocidal base coating. Thermally Modified Radiata Pine (Pinus Radiata). Moisture content: Approx. 7% MC (+/-2%) at time of dispatch.
Fillers	Translucent finishes are not designed to obscure the substrate, therefore filling and stopping should be avoided wherever possible, and should be done with great care. Be sure to use fillers specifically designed for use with timber. General or all-purpose fillers are not suitable, particularly on external areas, where even wood fillers often cannot cope with timber movement and work loose. When using translucent coatings, there is little point to filling fascia board joints and butt joints as the change in grain from one section to the other is often obvious, drawing attention to the filler.
Brushes	Where applicable, all brush applied coatings should be applied with a good quality brush. Water-borne coatings should be applied with a synthetic bristle brush, formulated for the application of water-borne products. All coatings should be laid off in the direction of the grain, with the minimum number of brush strokes required to give an even finish.
Weather condition	Where applicable, do not apply coatings when there is a risk of rain or frost. In general, solvent-borne coatings should not be applied below 5°C and water-borne coatings should not be applied below 8°C. Refer to Data sheets for precise information
Personal protection	Treatments for the removal of surface coatings (such as sanding, burning off, use of chemicals) may generate hazardous dust and/or fumes. Work in well-ventilated areas. Use suitable personal protective equipment (respiratory, eye and skin), as necessary. Manufacturer's advice should be followed at all times.
	The products mentioned must be applied in accordance with the relevant Sikkens Technical Data Sheet. In addition, all products should be used in accordance with BS 6150:1991 Code of Practice for Painting Buildings and BS 8000 Part 12:1989 Workmanship on Building Sites. When applying coatings, in order to ensure optimum protection and durability, it is essential to achieve the required coverage rate.
	<i>Particular attention should be paid to ensure end grain is <u>thoroughly</u> treated to saturation by applying the first coat "wet on wet" until no more product is absorbed.</i>
	The final overall appearance of the finish is dependent on a number of factors, including colour, absorbency and texture of the timber, as well as the shade and type of coating used. We therefore strongly recommend that a trial application is undertaken before work is carried out, to confirm its acceptability.
If you have an enquiry regarding any aspect of this specification, please contact your Akzo Nobel representative via the Technical Advice Department. Every care is taken to ensure the information provided in this specification is accurate at the time of issue. Akzo Nobel Industrial Coatings Ltd is however, unable to guarantee results since it has no control over the conditions under which its products are applied.	

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