INSTALLATION INSTRUCTIONS

IN FRONT OF WALL INSTALLATION SYSTEM ISO-TOP WINFRAMER „TYPE 1“

ISO CHEMIE
Use the blue technology.

In front of wall installation system with integrated insulating core



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PREPARATION

Read the instructions through completely before starting work. If anything is unclear or you have any questions, please clarify these points first with the supplier. When using the material for the first time, we recommend instruction through a trained employee or representative from the supplier.

Clean the masonry of any coarse soiling and mortar residue, level out the masonry joints and any breaks in the masonry with a finishing layer. In addition, the flatness of the base is required for air-tight connection to the masonry. In case of very uneven surfaces > 5 mm/m it is recommended to fit the profiles at the highest point so that the uneven areas are balanced out. The wall must be dry, firm, grease- and ice-free and have a sufficient load-bearing capacity, adhesion tests are recommended.

The bonding of the system brackets and system boards to the wall is a component part of the airtightness of the installation. The whole area of the IN FRONT OF WALL INSTALLATION SYSTEM ISO-TOP WINFRAMER „TYPE 1" must be bonded directly to the wall. Packing out in places to level off is not allowed. The load-bearing capacity of the in front of wall installation system is created by the direct bond to the load bearing masonry.

NOTE

The following description applies to the installation of both system brackets and system boards in the same way.

CUTTING TO SIZE

The system bracket with integrated insulating core can be cut to size using a standard mitre saw. The system bracket and insulating core are cut together, the insulating core remains folded in position so identical cut surfaces are produced. If longer lengths are required, the system brackets can be directly butt jointed. Fitting to the outer surface of the masonry begins after all the parts have been cut to size. Remaining pieces with a remaining length > 250 mm can still be used.

Please consult the ISO-TOP FLEXADHESIVE WF data sheet for more information.The ISO-TOP FLEXADHESIVE acts as both, adhesive and sealant.

Tongue and groove joint

ISO-TOP WINFRAMER SYSTEM BRACKETS are equipped, for quick and easy installation of several horizontal brackets, with grooves and the abutting surfaces and separate tongues. The tongues are fitted, air tight and watertight (see fig. 1), into the grooves with ISO-TOP FLEX-ADHESIVE WF. The sealing of the butt joint with adhesive must always be applied over the full material surface (see fig. 2). Apply the adhesive into both bracket grooves; install the tongue in the already mounted bracket and then butt-joint mount the second bracket.



fig. 1

FITTING

The adhesive surfaces must be cleaned before fitting. The adhesive surfaces should be as dry as possible, firm, free of ice, grease and loose mortar residue. A primer must be used on sandy surfaces if necessary.

The system adhesive ISO-TOP FLEX-ADHESIVE WF is applied to the system bracket. For accurate application, the nozzle must be cut as shown in fig. 3/1 & 2. Cut the tip of the nozzle off so that the opening radius is approx. 6 mm. Then cut a triangle out on one side, about 6 mm long and with a front width point of approx. 6 mm. Pre-cut nozzles can be shortened if necessary.

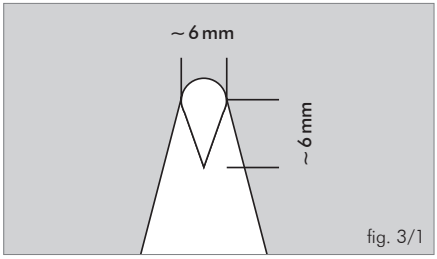


fig. 3/1


fig. 3/2

Adhesive is applied to the system bracket as shown in fig. 4. The upper adhesive bead is applied approx. 15 mm (edge distance) below the top edge of the system bracket. The lower adhesive bead is applied approx. 15 mm above the bottom edge of the system bracket (see fig. 4 and 5). The sealing sides between both lines should be closed to form a rectangle. The adhesive beads must be applied continuously across the whole length. On brackets with a width 140 mm and above, an additional adhesive bead must be applied along the material joint (see fig. 5).

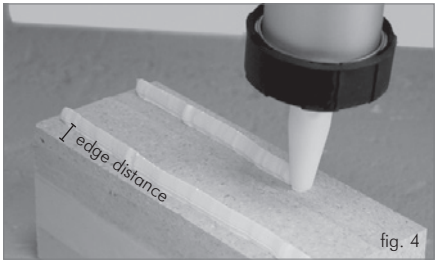
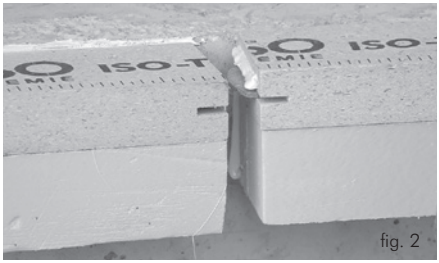


fig. 4

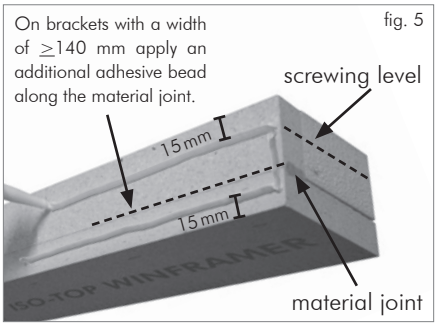
Approx. 50% more adhesive must then be calculated. Adhesive application for the installation of system boards is done in the same way, which means two adhesive beads must be applied for bonding to the wall, as shown above.

Begin fitting with the bottom horizontal system bracket. Once the adhesive beads have been applied, the system bracket is fixed (move in all directions so that the adhesive is evenly distributed) firmly against the masonry and positioned with a spirit level. After this is completed, the other system brackets can follow.

When applying the ISO-TOP WINFRAMER SYSTEM BRACKETS to the surface, the adhesive must be distributed in such a way that the entire back of the system profile is coated. This is the case when the adhesive emerges along all of the visible edges of the brackets. The adhesive bead should reach a width of approx. 30 mm and be less than 4 mm thick. If the adhesive layer is too thick, this will have a negative effect on the load-bearing capacity. To increase the load bearing capacity, adhesive can be applied to the whole surface of the system brackets. Notched trowels are well suited for this purpose. The ISO-TOP WINFRAMER SYSTEM BRACKETS can be fixed to the masonry with clamps or screw-type vices during installation.


fig. 2

In addition, the system brackets are bolted mechanically all the way round (screws with approval). For concealed attachment, the insulating core on the connecting strip, which works like a hinge, is simply moved back out of the way. The fixing screws must be selected to match the masonry material. Comply with the specifications (including the edge distance to the masonry) of the screw manufacturers. The screwing level should be approximately at the same level as the adhesive beads (fig. 5).



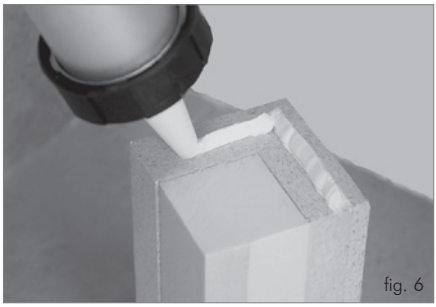
Screws should be fixed starting at the outer edges (right and left) beginning with a distance of ≥100 mm, distance between the screw points ≤700 mm. The same fixing distances must be maintained all the way round. The system brackets must be pre-drilled (core diameter of the screw) before fitting to prevent damaged. This also applies to the subsequent attachment of the window frame. Screws with a head must be used, and the drill holes may need countersinking to match the back of the screws.

Following screw fixing, the insulating core is moved back into place and spot-fixed using the ISO-TOP FLEX-ADHESIVE WF.

The vertical system profiles are fitted on top of the bottom horizontal profile. When fitting the vertical profiles adhesive must be applied to the surfaces of all four corners (top and bottom, see fig. 6). This bonding using the system adhesive ISO-TOP FLEX-ADHESIVE WF is necessary to achieve an air tight installation layer.

NOTE

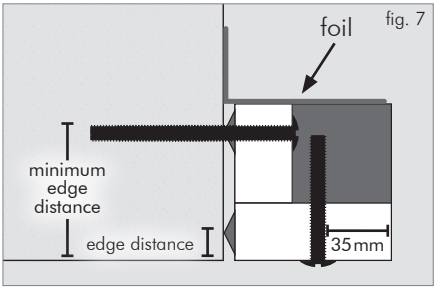
The adhesive surfaces must be always applied, so that no air can penetrate through the adhesive surface from the room side to the outside. This is the case, once the adhesive emerges around the reveal edges and in the corners.



On the top horizontal system bracket, the butt joint to the masonry must be protected from water penetration during the construction phase by an additional adhesive bead or foil cover.

NOTE

If a continuous, airtight connection to the masonry substrate is not possible due to large unevenness, we recommend the window sealing be done with the application of window connection foils to the interior masonry (fig. 7).



The system adhesive is only approved for use down to ≥ 0 °C on frost-free surfaces. This minimum temperature applies to the ambient and bonding surface temperature. At low temperatures the curing times lengthen considerably. We recommend that you test the adhesive first on two or three 30 cm system brackets and to check the adherence at intervals of a few days.

After the system bracket has been fitted, the window systems are installed in accordance with the generally accepted technical guidelines. Here, the specifications published in the "installation guide" (current edition) issued by the RAL-Gütegemeinschaft Fenster und Haustüren e.V. (RAL quality assurance association for windows and doors) must be heeded.

Spacer screws/window screws can be used to install the window system brackets of ISO-TOP WINFRAMER „TYPE 1" FRONT WALL MOUNTING SYSTEM. The technical specifications of the screw manufacturer must be adhered to. The screw holes must be predrilled in the brackets to prevent damage. The fastening screws for fixing the frame profiles (window/door), must be screwed through the full material thickness of the ISO-TOP WINFRAMER SYSTEM PROFILE in order to to securely absorb wind and sash loads. The minimum distance of the fixing screw of the window in the ISO-TOP WINFRAMER, measured from the front edge, is 35 mm. Pre-drill the screw holes, here too, to avoid damage.

NOTE

The average load of the IN FRONT OF WALL INSTALLATION SYSTEM ISO-TOP WINFRAMER „TYPE 1" is specified as a min. of 200 kg/m. However individual maximum loads per/m related to specific construction surfaces can be found in the ift test certificates.

SPECIAL SOLUTIONS

Combinations of system brackets and system boards can also be installed (fig. 8). In this case, the bonding technique between the system components must be identical to the bonding between components and masonry. Screws are then driven through both components for mechanical attachment.

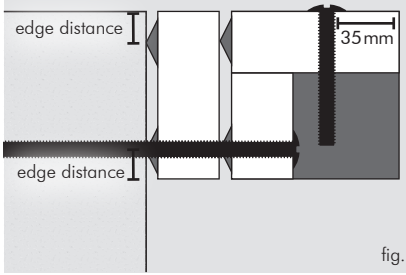


fig. 8

NOTE

A combination of the different types of ISO-TOP WINFRAMER on one unit are allowed, provided the technical and static parameters are met.

Fastening the ISO-TOP WINFRAMER „TYPE 1" and fastening the frame when installing window elements to RC 2 and RC 3

In contrast to the normal fixing of the ISO-TOP WINFRAMER „TYPE 1", the fixing distances are reduced for installation to RC 2 and RC 3.

The horizontal fixing distance from the outer corner of the supporting structure is approx. 100 mm and then approx. 350 – 400 mm. Vertically from the outer corner of the supporting structure, the fastenings must be made at approx. 200 mm and then every 350 – 400 mm.

The fixing of the window frame in the ISO-TOP WINFRAMER is carried out approx. 180 mm from the window frame corner and then approx. every 300 mm, in accordance with the window manufacturer's specifications and in coordination with the wind load. Additional information can be found in the test reports.

The information in these installation guidelines are based on our current knowledge. They are intended to serve as general information and guidance only. Due to the wide range of possible influences during processing and application, they do not exempt the user from carrying out his own tests and trials. No warranty or liability is given or implied for certain properties or suitability for a specific application. In addition, we would like to point out that the specifications from the "installation guide" of the RAL Quality Association for Windows, Facades and Front Doors e.V. as well as nationally and internationally applicable standards and the generally recognised rules of technology must be observed. We reserve the right to modify, or change, the specifications and information without advance notification.

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