

475 INTELLO® Installation Instructions - Metal Frame

This intelligent airtight system is installed inboard of the primary insulation layer in exterior walls and ceilings to optimize the building assembly and make a robust, vapor-variable, and airtight enclosure.

PLEASE NOTE

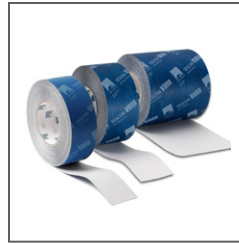
Assemblies using batt or rigid insulation should complete installation prior to INTELLO Plus / INTELLO X membrane application. Blown-in insulation should be installed after INTELLO Plus membrane application. Insulation and membrane application should immediately follow one another when cold outside.

Check studs/framing for nails, splinters, and unnecessary protrusions - this prevents punctures and damage to the membrane.

Ensure the site and floor is dry, clean, and free of dust, silicones, adhesives, and grease. Remove loose materials and sweep prior to installation.

Equipment: Self-drilling cap screws (1/2" washers), tape measure, utility knife, caulk gun, marker, straight edge, brush, rag, ladder/scaffold.

Always follow site and construction safety procedures.



TESCON VANA

All-around interior and exterior vapor open (8 perms) air sealing for permanent airtight taped bonding of membranes, plywood, OSB, concrete, and a variety of airtight substrates. Tescon Vana tape comes in a variety of widths: 2 3/8" (60mm), 3" (75mm), 4" (100mm), 6" (150mm), and 8" (200mm).



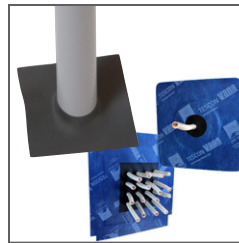
CONTEGA HF

All-around adhesive for interior and exterior airtight connections between uneven substrates or difficult junctions. Exceptionally high adhesion properties while also remaining elastic. Low VOC, meets stringent IAQ test. Available in 310ml cartridges and 600ml sausage tubes.



INTELLO PLUS / INTELLO X

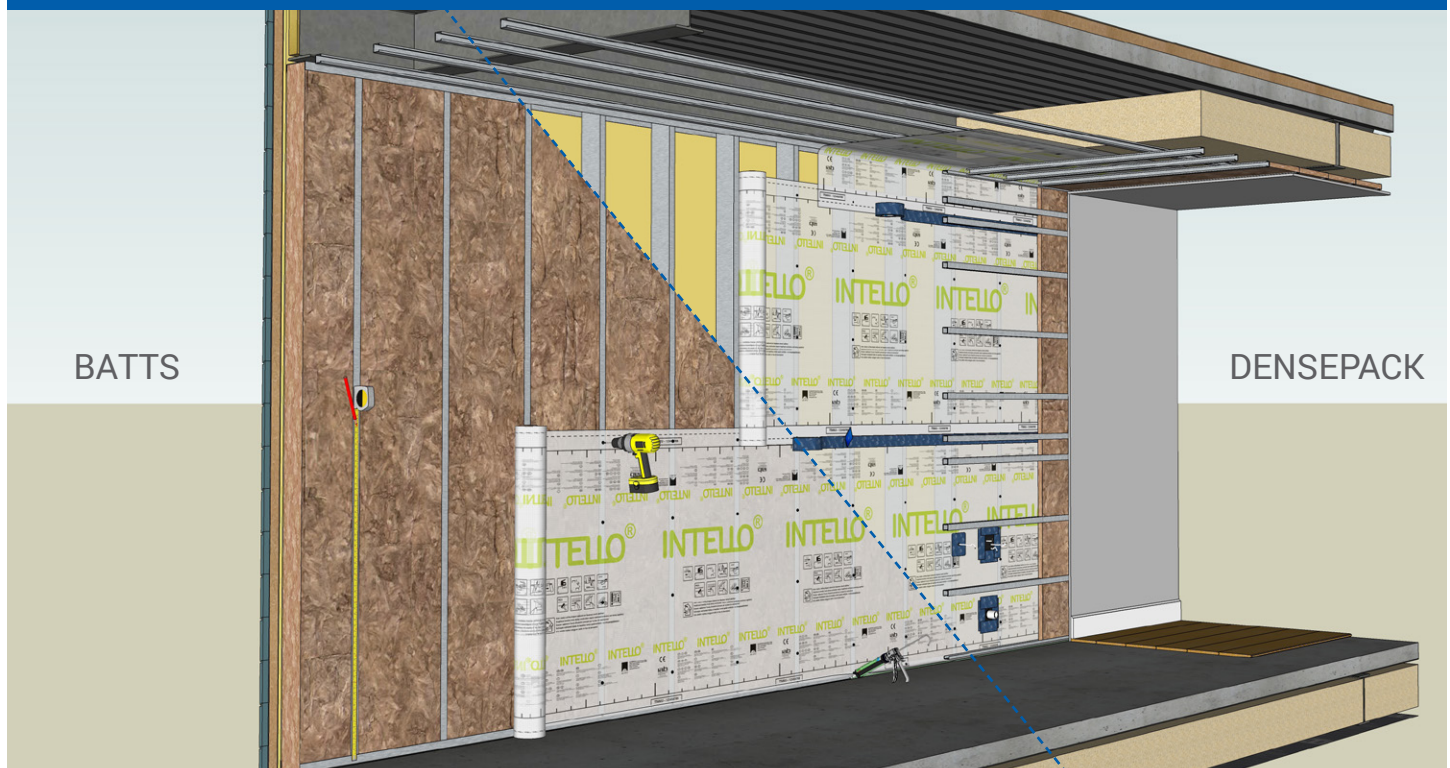
Intelligent vapor retarders for first-class interior air sealing of walls and ceilings. INTELLO Plus has an integrated reinforcement layer for use with dense pack insulations. INTELLO X is suitable for up to 2 months of weather exposure. Each offers high diffusion tightness (0.13 perm) when low relative humidity, and maximum diffusion openness (13.20 perm) when high relative humidity.



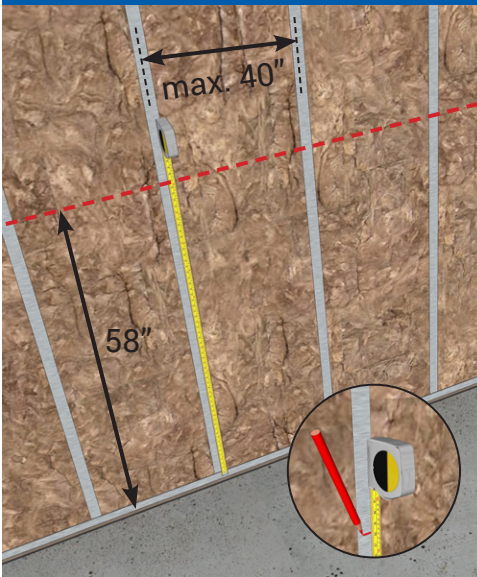
KAFLEX & ROFLEX

EPDM gaskets to create quick, flush, adjustable, and durable air sealing for wires (KAFLEX) and pipes (ROFLEX). Available in a variety of sizes that seal round penetrations securely from 1/4" to 12".

OVERVIEW



1 - MARK AT 58"



Studs should be spaced 40" o.c. max.

Using a marker and measuring tape, mark the studs at a distance of 58" from the floor to indicate where to align the upper edge of the INTELLO membrane.

2 - UNROLL THE MEMBRANE



Unroll INTELLO for the entire wall section, allowing sufficient material for "relaxed" corners at intersecting wall studs. Ensure there is a 1" overlap of the membrane covering the floor for future sealing (in step 7).

Important: the writing on the INTELLO should face into the room.

3 - FASTENING



(1) Apply screws the upper edge of the INTELLO on a 1st and 3rd stud.

(2) Pull INTELLO tight into a triangle on the center stud and fasten in place.

(2b) Continue fastening along length of the sheet according to the pattern of steps 1 and 2.

(3) Pull membrane taut and apply self-drilling cap screws to the studs evenly at intervals 16" or less down each stud.

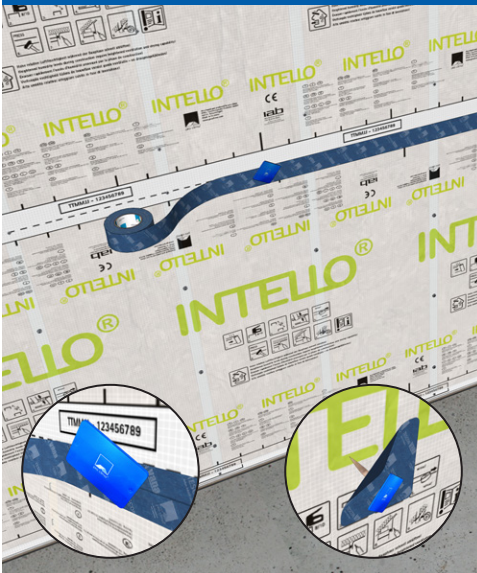
4 - OVERLAP THE MEMBRANES



Using the printed markings as a guide, overlap the next row of INTELLO over the bottom sheet and fasten along the bottom edge. As in Step 3 - pull the membrane up into a taut triangle and fasten at the upper edge.

At junctions between walls & ceilings, corners, and floors, make sure INTELLO is "relaxed" and has room to accommodate expansion and contraction of the structure.

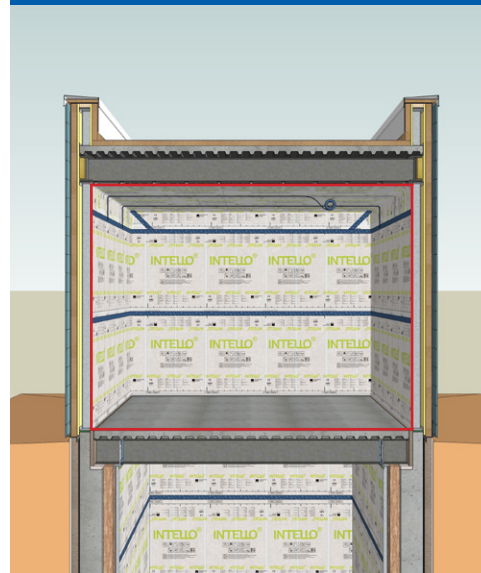
5 - TAPE THE OVERLAPS



Use TESCO VANA to tape the INTELLO overlaps. Use the dotted line to center the tape over the joint and press firmly with a PRESSFIX tool. The higher the initial pressurization, the more secure the bond will be.

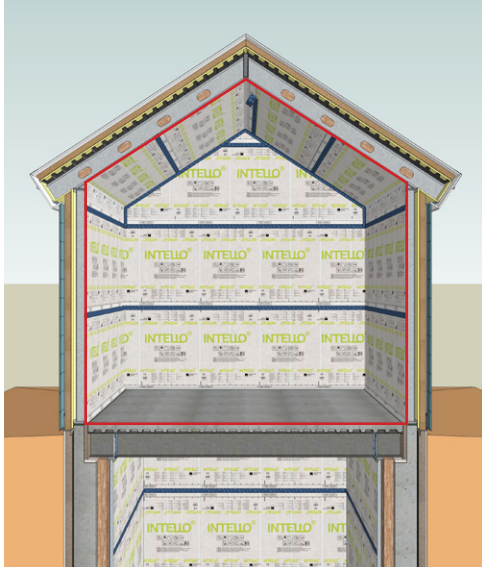
Make sure the adhered joint is free of permanent tension or stress. Avoid leaks through creases in the INTELLO by covering them with tape or cutting them out. Holes in the membrane can be airsealed with TESCO VANA patches or VANA 150 or 200.

6 - WALL & CEILING - FLAT ROOF



Install INTELLO so that it completely covers the walls and ceiling and tape seams with TESCO VANA, ensuring that you form an airtight seal (airtightness continuity shown here in red).

6 - WALL & CEILING - CATHEDRAL ROOF



Install INTELLO so that it completely covers the walls and ceiling and tape seams with TESCON VANA, ensuring that you form an airtight seal (airtightness continuity shown here in red).

7 - FLOOR JOINT



Apply CONTEGA HF adhesive on the floor board, forming a continuous bead approximately 1/4" thick. Lay the membrane in the adhesive bed, leaving an expansion joint. Do not press the adhesive completely flat.

Note for all tape and adhesive bonds: the substrate onto which the adhesive is applied should be load bearing, dry, smooth, and free of dust, silicon, and grease. When in doubt, verify suitability of substrate with an adhesion test.

8 - COUNTER BATTENS - DENSE PACK



Add horizontal counter battens spaced max. 20" apart before dense packed insulation is blown in. Tape joints should be supported with a batten over the tape or reinforced with perpendicular strips of tape spaced less than 12" apart.

The battens form a service cavity in which wiring and services can be placed. Optional: cavity can be insulated before the sheetrock is installed.

8 - COUNTER BATTENS - BATT



Optional: add horizontal counter battens spaced max. 20" apart to form a service cavity in which wiring and services can be placed. Cavity can also be insulated before the sheetrock is installed.

9 - PENETRATIONS WITH SERVICE CAVITY | WITHOUT SERVICE CAVITY



Airseal pipes and cables with ROFLEX and KAFLEX air sealing sleeves. The cable sleeves and ROFLEX 20 are self-adhering with integrated TESCON VANA patches. Other ROFLEX pipe sleeves are adhered to INTELLO with TESCON VANA.



Use LESSCO Box to create an airtight cavity for light switches and electrical outlets when there is no service cavity. Tape LESSCO Box to the membrane with TESCON VANA.

Use wood or metal strips to add reinforcement to INTELLO when there is no service cavity.