

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 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.

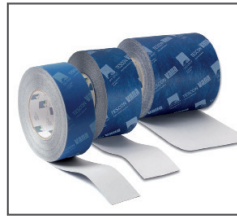
Equipment: Staple gun (if pneumatic, set compressor at appropriate pressure, so staples set flush with membrane), T50 staples (5/16" (8mm) legs with 3/8" (10mm) crown), tape measure, utility knife, caulk gun, marker, straight edge, brush, rag, ladder/scaffold.

**Always follow site and construction safety procedures.**

### For Exposed Sites (high rise/coastal areas)

To support INTELLO against force from high air/wind pressures take the follow pre-cautions:

- use heavy duty T50 staples with 3/8" legs (10mm)
- space staples less than 2" apart
- service cavity battens should be located at 16" centers (400mm)



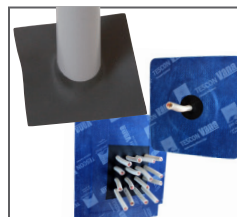
## TESCON VANA

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 tapes comes in a variety of widths: 2 3/8" (60 mm), 3" (75 mm), 4" (100 mm), 6" (150 mm), and 8" (200 mm).



## CONTEGA HF

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



## ROFLEX / KAFLEX

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



## INTELLO PLUS

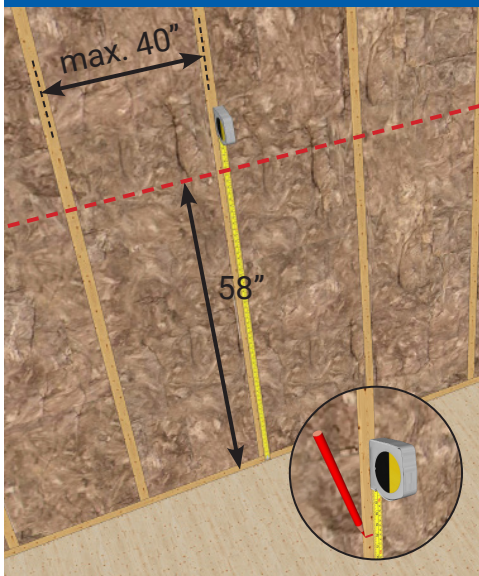
Intelligent vapor retarder for interior air sealing of walls and ceilings with an integrated reinforcement layer for use with dense pack insulations. Offers high diffusion tightness (0.13 perm) when low relative humidity and maximum diffusion openness (13.20 perm) when high relative humidity.

## OVERVIEW





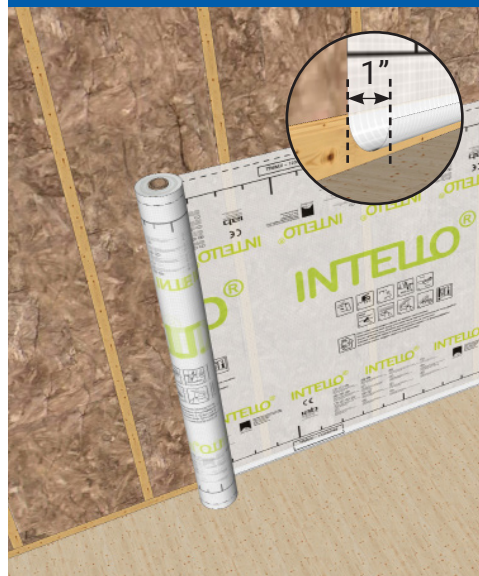
## 1 - MARK AT 58"



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.

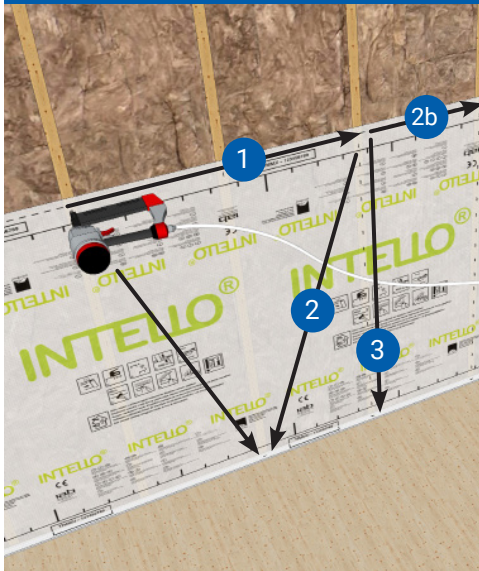
## 2 - UNROLL THE MEMBRANE



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 - STAPLING

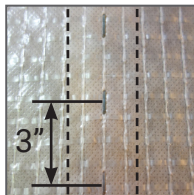


(1) Staple along the upper edge of the INTELLO on a 1st and 3rd stud.

(2) Pull INTELLO tight into a triangle on the center stud and staple.

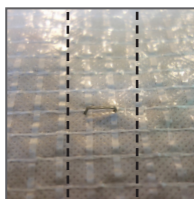
(2b) Continue stapling along length of the sheet according to pattern of steps 1 and 2.

(3) Pull membrane taut and apply staples parallel to the studs evenly at 3" or less intervals down each stud.



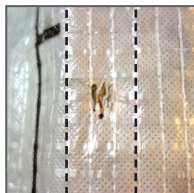
### CORRECTLY STAPLED

Staple is flush with the surface of the membrane, positioned parallel to framing member. Staples should be applied evenly at a maximum of 3" intervals.



### INCORRECTLY STAPLED

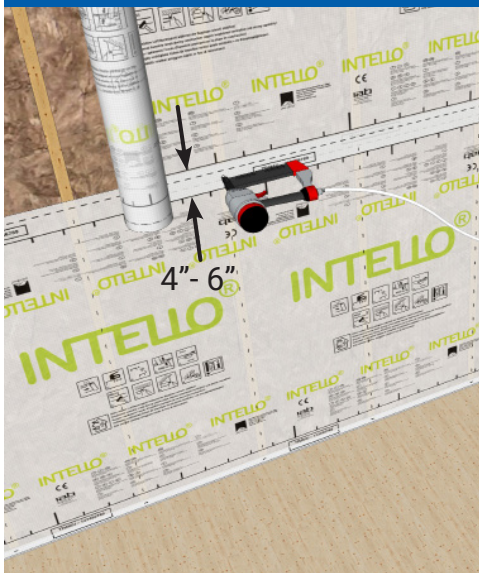
Staple was applied with too little pressure, and is not parallel to the framing member.



### INCORRECTLY STAPLED

Staple was applied with too much pressure and punctured the membrane.

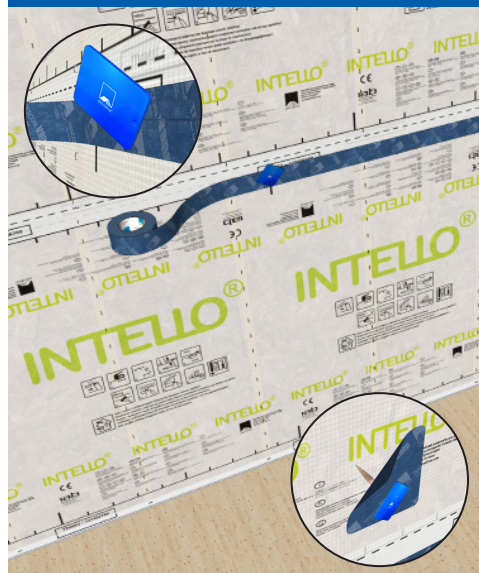
## 4 - OVERLAP THE MEMBRANES



Using the printed markings as a guide, overlap the next row of INTELLO over the bottom sheet and staple 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 constriction of the structure.

## 5 - TAPE THE OVERLAPS

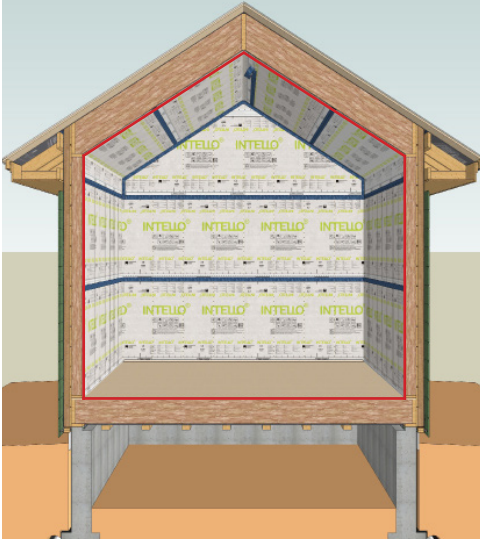


Use TESCON VANA to tape the INTELLO overlaps. Use the dotted line to center the tape over the joint and press firmly with a PRESSFIX tool. The higher the initial pressurization, the more secure the bond will be.

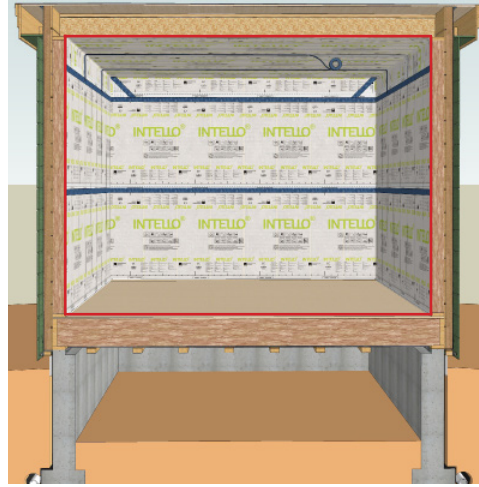
Make sure the adhered joint is free of permanent tension or stress. Avoid leaks through creases in the INTELLO by covering them with tape or cutting them out. Holes in the membrane can be airsealed with TESCON VANA patches or VANA 150 or 200.



## 6 - WALL & CEILING - CATHEDRAL ROOF | 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).



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## 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



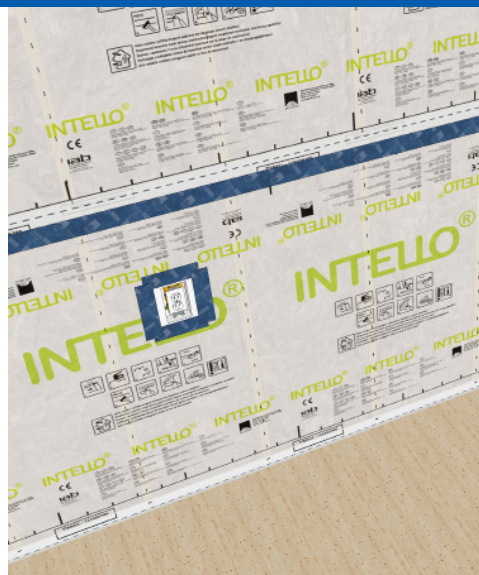
Add horizontal counter battens spaced max. 20" apart before dense packed insulation is blown in. Tape joint should be supported with a batten over the tape or reinforced with perpendicular strips of tape spaced less than 12" apart.

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

## 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 TESCO VANA patches. Other ROFLEX pipe sleeves are adhered to INTELLO with TESCO VANA.



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

# Other Installation Guides from 475 High Performance Building Supply



## WINDOW PENETRATION



## METAL STUD INSTALLATION

