Insulation for use in Party Wall applications

Masonry and Timber Party Wall Design & Installation Guide


URSA.
Insulation
for a better
tomorrow.

URSA have been specialists in innovative, award-winning insulation since 1959 - and a leading European manufacturer of glass mineral wool for over 50 years.

Our headquarters are in Madrid, Spain, although our business spans more than 40 countries, with 11 production sites and over 1,500 employees. Our team in the UK are dedicated to providing glass mineral wool insulation solutions, whatever the project.

CCPI (Code for Construction Products Information)

URSA CAVITY BATT 35, URSA PARTY WALL ROLL, URSA ACOUSTIC and URSA FRAMETEC SLAB 35 hold CCPI Assessment Mark. Certificate number: 005800185/1027.

Part of the Etex Group

In 2022 URSA became part of Etex - a global group comprising of 160 facilities across 45 countries and the name behind many other construction product brands in the building materials sector including Superglass, a leading UK glass mineral wool insulation manufacturer. In 2025, the Superglass and URSA brands came together to form Etex UK Insulation Ltd.

URSA TERRA

Developed in 2009, URSA TERRA showcases the latest in glass mineral wool technology. Our distinctive production methods and product formulation define the character of our extensive insulation product range.

Traditionally, the heat loss through separating/party cavity walls in semi-detached and terraced properties was assumed to be zero as, in theory, there is no temperature differential across the wall. However, studies have shown that air movement within this cavity (with further infiltration from the front and rear external cavity walls) means the separating wall can have an equivalent U-value as high as 0.70 W/m²K.

Party Wall Heat Loss

The Building Regulations now recognise the importance of the party wall thermal bypass and the need to reduce its effect. The studies have identified two important measures:

- Fully filling the cavity with glass mineral wool insulation with a minimum density of 18 kg/m^3
- Installing adequate sealing at all exposed edges and in line with the insulation in adjacent elements

For optimum performance the party wall cavity insulation and the edge sealing must be contiguous to reduce the heat flow through, across and along the separating wall and reduce air movement into and within the wall. Executed correctly, all these measures will reduce the U-value of the wall to zero, while effective edge sealing alone will reduce the effective U-value to 0.20 W/m^{2}K.

U-Value (W/m^{2}K)	Party Wall Construction
0.0*	Solid
0.5	Unfilled cavity with no effective edge sealing
0.2	Unfilled cavity with effective edge sealing around all exposed edges and in line with insulation layers in abutting elements
0.0*	Fully filled cavity and with effective edge sealing around all exposed edges and in line with insulation layers in abutting elements

** By either building a solid wall or fully filling a party wall cavity with mineral wool insulation results in a U-Value of 0.0W/m^{2}K, i.e. zero heat loss.*

Workmanship

The insulation must fully fill the masonry party wall cavity so that it is in effective* contact with both masonry faces of the cavity up to the underside of the roof line. All joints must be tightly butted without gaps or voids.

If required, cavity fire barriers are installed at the vertical edges of the party wall cavity, with the barrier in contact with the insulation in the cavity.

All joints should be tightly butted to ensure a continuous barrier where the party wall and external wall meet. This provides an effective edge seal when used in conjunction with full-fill mineral wool insulation as described above.

The quality of workmanship must be carefully monitored and be part of the on-site quality control process, highlighting those aspects that are critical to performance - for example, highlighting the need to use cavity boards and clear mortar from the top of the slabs or rolls during construction to reduce the risk of gaps at joints.

Installers should carefully follow the design guidelines in this document, the Mineral Wool Insulation Manufacturers Association (MIMA) Design Guide on preventing thermal bypass, and the use of checklists and additional on-site training should be considered.

Masonry cavity and timber frame separating walls must provide suitable sound insulation between dwellings as outlined in Approved Document E (England and Wales) of the Technical Handbook 5 (Scotland). Suitable details have been used successfully for many years; adding further layers of insulation into the walls must not degrade this performance, and extensive tests have shown that fully filling cavities with glass mineral wool does not.

The Building Regulations, Part E Robust Details and MIMA document Preventing Thermal Bypasses in Party Separating Walls show suitable solutions and detailed drawings.

URSA glass mineral wool products are covered by a number of Robust Details for both parged and unparged masonry walls and timber framed walls.

** Effective means that the insulation must be in contact with the face of both masonry leaves. It is allowable for contact to be broken in strictly limited localised areas, for example where voids in mortar joints occur or where mortar protrudes into the cavity and locally compresses the insulation.*

Robust Details®

robustdetails

URSA PARTY WALL ROLL or URSA CAVITY BATTS can be used in the following Masonry Robust Details Approved Solutions;

Robust Detail	URSA Product	Minimum Cavity Width (mm)	Block Type & Density (kg/m³)	Parge Coat Required	Wall Finish
E-WM-1	URSA CAVITY BATT 35	75	Dense Aggregate - 1850 to 2300	No	Wet Plaster
E-WM-2	URSA CAVITY BATT 35	75	Lightweight Aggregate - 1350 to 1600	No	Wet Plaster
E-WM-3	URSA CAVITY BATT 35	75	Dense Aggregate - 1850 to 2300	Yes	Render and gypsum-based board on dabs
E-WM-4	URSA CAVITY BATT 35	75	Lightweight Aggregate - 1350 to 1600	Yes	Render and gypsum-based board on dabs
E-WM-5	URSA CAVITY BATT 35	75	Holcim Star Performer - 1528	Yes	Render and gypsum-based board on dabs
E-WM-6	URSA CAVITY BATT 35	75	Aircrete - 600 to 800	Yes	Render and gypsum-based board on dabs
E-WM-10	URSA CAVITY BATT 35	75	Aircrete - Thin Joint System - 600 to 800	Yes	Render and gypsum-based board on dabs
E-WM-11	URSA PARTY WALL ROLL	100	Lightweight Aggregate - 1350 to 1600	Yes	Render and gypsum-based board on dabs
E-WM-12	URSA CAVITY BATT 35	75	Plasmor 'Aglite Ultima' - 1050	Yes	Render and gypsum-based board on dabs
E-WM-13	URSA CAVITY BATT 35	75	Aircrete - Thin Joint Untied System - 600 to 800	Yes	Render and gypsum-based board on dabs
E-WM-16	URSA PARTY WALL ROLL	100	Dense Aggregate - 1850 to 2300	Yes	Render and gypsum-based board on dabs
E-WM-18	URSA PARTY WALL ROLL	100	Dense Aggregate - 1850 to 2300	No	Wet Plaster
E-WM-19	URSA PARTY WALL ROLL	100	Dense or Lightweight Aggregate - 1350 to 1600 or 1850 to 2300	Yes	Render and gypsum-based board on dabs
E-WM-21	URSA PARTY WALL ROLL	100	Lightweight Aggregate - 1350 to 1600	No	Wet Plaster
E-WM-22	URSA CAVITY BATT 35	100	Lightweight Aggregate - 1350 to 1600	No	Gypsum-based board on dabs
E-WM-25	URSA CAVITY BATT 35	100	Porotherm - Thin Joint - n/a	Yes	Ecoparge gypsum-based board on dabs
E-WM-26	URSA CAVITY BATT 35	100	Holcim Star Performer - 1528	No	Gypsum-based board on dabs
E-WM-29	URSA CAVITY BATT 35	75	Porotherm - Thin Joint - n/a	Yes	Ecoparge gypsum-based board on dabs
E-WM-31	URSA PARTY WALL ROLL	100	H+H Celcon Elements - thin joint - 575	No	Gypsum-based board on dabs
E-WM-34	URSA PARTY WALL ROLL	100	Plasmor 'Aglite Ultima' - 1050	No	Gypsum-based board on dabs

The requirements of the Robust Details Handbook should be strictly followed.

Fire Performance

URSA glass mineral wool insulation products are deemed non-combustible with a fire classification of Euroclass A1 (the highest possible rating) when tested to EN 13501-1:2018 Reaction to Fire.

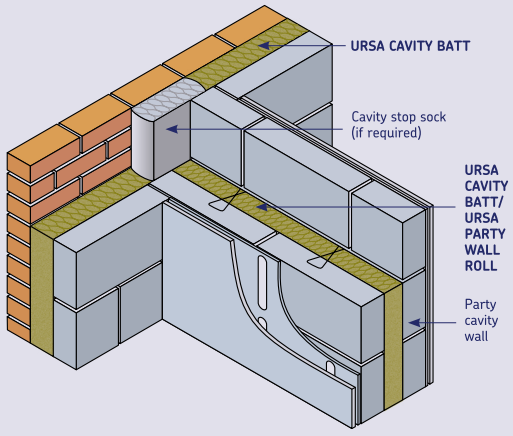
Installation – Cavity Masonry Separating Walls

URSA CAVITY BATTS/URSA PARTY WALL ROLL is built in as the wall is constructed.

The standard procedure is:

1. The party wall may be built leading with either leaf; a minimum 75mm cavity must be maintained.
2. The first row of URSA CAVITY BATTS/URSA PARTY WALL ROLL, cut to size if necessary, may begin below the DPC to ensure continuity of insulation.
3. Raise the leading leaf to the level of the next row of wall ties, normally at 450mm vertical centres. Excess mortar should be cleaned from this leaf before fitting the insulation onto the lower ties.
4. The next row of wall ties is fitted to retain the top of the insulation. Ensure that the drip is positioned at the centre of the insulation.
5. The other leaf is then built to the level of the top of the URSA CAVITY BATTS/URSA PARTY WALL ROLL and the process repeated.
6. The subsequent rows of insulation should be fitted with vertical joints staggered i.e. brick bond with all joints tightly-butted. Insulation with damaged edges or corners should not be used.
7. As work proceeds ensure that the top of the insulation is kept clean and free from mortar droppings. Using a cavity batten will help to protect the insulation as the next section is built.
8. Cut sections of insulation may be needed at corners and the junction with the external wall, and it's essential these are cut accurately to fill the space they're intended for.
9. When stopping work due to adverse weather conditions or when work is partially completed, the walls should be protected from inclement weather (e.g. wind, rain, or snow) and covered at the end of the day's work or when stopping work due to adverse weather conditions. This is essential to ensure the product does not get wet or damaged.

Figure 2
Cavity Masonry Separating Walls



Installation – Timber Frame Separating (Party) Walls

The additional heat loss due to thermal bypass in timber frame party/separating walls must be accounted for in the overall thermal assessment of the building. Fully filling the interstud and interframe voids with mineral wool along with efficient edge sealing can reduce the effective heat loss to 0.00 W/m²K.

URSA FRAMETEC, URSA FRAMETEC SLAB and URSA ACOUSTIC ROLL are designed to fit between the studs in each wall and between each leaf.

The standard procedure is:

1. Fit the timber frame walls in the normal manner and in accordance with the manufacturer's details ensuring a minimum of 240mm between the inner faces of the wall linings and 50mm separation between the studs in each leaf. If, for structural reasons, a sheathing board is used on one or both leaves ensure a 50mm gap is maintained between the panels.
2. Install URSA ACOUSTIC ROLL between the frames. High tack spray adhesive may be used to secure the insulation to one of the leaves when using plywood sheathing. Account for on-site tolerances and ensure the space is fully-filled across the whole wall area.
3. Install URSA FRAMETEC or URSA FRAMETEC SLAB in both frames filling the full depth of the studs.
4. Install vertical cavity barriers to seal the cavity (for acoustic, thermal and fire performance) ensuring they are contiguous with the party cavity wall insulation.
5. When stopping work due to adverse weather conditions or when work is partially completed, the walls should be protected from inclement weather (e.g. wind, rain, or snow) and covered at the end of the day's work or when stopping work due to adverse weather conditions. This is essential to ensure the product does not get wet or damaged.

Light steel frame walls are insulated following the same process using URSA FRAMETEC SLAB 35, URSA ACOUSTIC ROLL or URSA HOMETEC ROLL 35.

Figure 3
Timber Frame Separating Wall

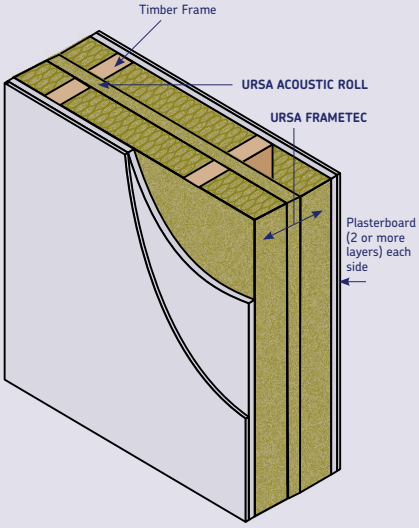
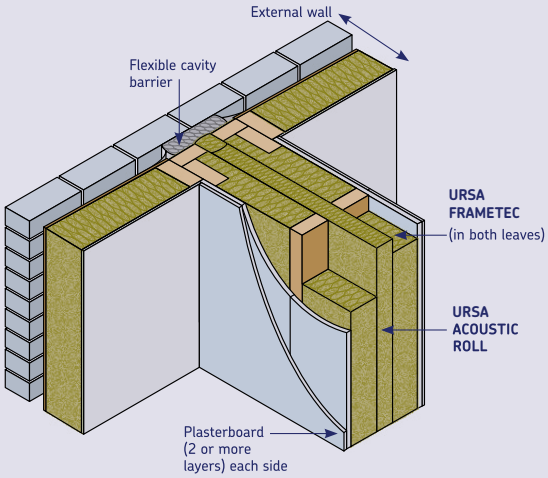
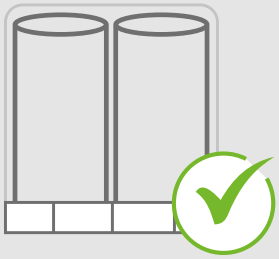


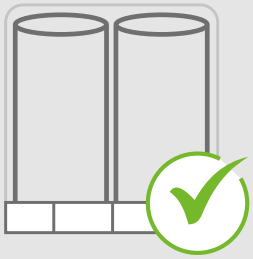
Figure 4
Timber Frame Separating / External Wall Junction



How to store our insulation

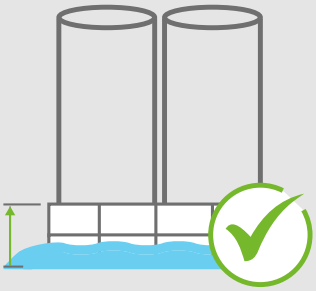


Keep the product covered and fully wrapped on a pallet until required.

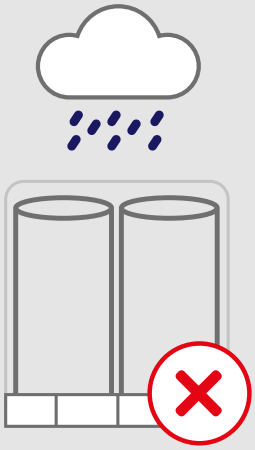


A pallet that is wrapped and has an undamaged hood can be stored outside when indoor space is unavailable, provided it is kept off the ground and protected from the elements. This should only be for short-term storage and not in severe weather conditions.

Once the plastic hood has been removed keep all of the product inside and off the ground away from the elements.



Product should be kept elevated on a pallet at all times to avoid sitting water.



Product can become wet and damaged when exposed to the elements.

Loose product is extremely likely to have water damage when left in the rain rendering your stock unfit for sale.

Please note: This guide is suitable for all URSA roll, slab and batt products. We do not recommend that URSA pallets are double stacked.

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