
Comparison Of Different Types Of Walls: New And Traditional

Common bricks, ceramic or cement blocks, galvanized steel, cellular concrete, panels or plastic. Pros and cons of each type of wall. How are they made? The insulation against cold, heat and humidity. Costs The technology of the walls today has diversified widely. The options are many, can be raised from metal walls that are assembled as if they were a macano to plastic walls that can be washed with soap and water.

Thus, thanks to the fulminant advance of construction techniques, the options are much broader for all types of projects that are being designed. These new systems coexist with the traditional norms of construction, that is to say, the masonry of common bricks, of ceramic blocks or of cement. There are also other systems called rationalized, which combine the use of traditional materials with more controlled construction techniques. On the other hand, the industrialized ones, which use pre-fabricated panels or plates in factories. The last two systems are applied to save costs and fundamentally to reduce the time of execution of the wall. Characteristics that must be taken into account when deciding Each method has advantages and disadvantages. And it is very difficult to establish "in the air" which of them is the best: this will depend on the needs of the project, the work and basically the aspirations and tastes of the owners of the future house. When establishing which technology is the one that fits or best suits the house, the following aspects should be taken into account: The resistant capacity: masonry walls have an acceptable load capacity. That is, if it is only built on the ground floor, it will not be necessary to add an additional structure.

On the other hand, if it is a question of constructions of one or more high floors, it will be necessary to place reinforcements. Or also, incorporate an independent structure of reinforced concrete or steel. In this case the wall fulfills only one function of enclosure of the environments and will not support more load than its own weight. Walls that use ceramic or cement blocks have the advantage that they reduce the use of formwork, the traditional wooden molds where concrete is poured. This is because the blocks come prepared with special holes to assemble the columns and beams, and then cast the concrete. Industrialized systems can sustain a house of two and more high floors, without the need for additional structures. Thermal insulation: the need for thermal insulation is essential, especially in walls that are poorly oriented. And especially in those that look to the south. It happens that, since the outer face of the wall is cold in winter, the humidity can condense and there is the classic phenomenon of transpiration of the wall on the inner side, and over time the formation of fungi on the surface of the wall. The thermal insulation is achieved in two ways: one, it is by means of very thick walls.

For example, brick walls 30 centimeters thick (unused, uneconomical and low efficiency). The other is to use porous materials, such as polystyrene (expanded polystyrene) or fiberglass. The double walls with air chamber work very well as thermal insulators. But the industrialized ones can achieve the best result with less thickness, because they incorporate special insulators. Acoustic insulation: traditional brick walls work well as acoustic insulators to a certain limit, as they have mass or thickness. On the other hand, since industrialized systems are thin, they tend to fail in this aspect, therefore, traditional insulating barriers, such as Fonac® de Composite plates, will have to be placed. Hydrophobic insulation: special insulating barriers are applied to

industrial walls, such as the Tyvek® (Dupont) insulation membrane. In the case of traditional walls, it is made with a layer of hydrophobic plaster: the famous ceresite. Of course: it is necessary to control very well that when the mason applies the ceresite it gives a perfect continuity to the surface. Because if there is any pore, it will be the weak point where the moisture leaks. In addition, the thick plaster should be made immediately so that the sun does not "burn" the ceresite and finish cracking it. Speed of execution: It is the strong point of industrialized systems. However, if the traditional walls are made with a rationalized system, for example with cement blocks or ceramics (which have measures and faces pairs), it is possible to lower the construction times a lot. Maintenance cost: Many prefer brick walls because they seem to avoid having to periodically paint the house. However, we must not forget that every 3 or 4 years require a treatment with special varnishes based on silicones, so that the wall does not absorb water and fungi form on its surface. Industrialized systems with plastic molds do not require paints or coatings and are washed with soap and water. Loss of useful space.

This topic in general is not taken into account. However, in large wall lengths, a difference in thickness between a 15-centimeter wall and a 30-inch wall can add enough square meters to add another room, such as a bedroom. Aesthetic appearance. Although it is the most subjective, it must be taken into account when choosing the system to use. It is advisable that the exterior walls are related to the general appearance of the house. Installations: When choosing the wall, the ease of execution and the repair of the plumbing of the different installations -electric, gas, water- that pass through the interior of the wall must be taken into account. In the traditional walls, the pipes are enclosed. Therefore it is inevitable to break to make some repair. On the other hand, dry mounting systems are much easier to repair the installations because the panels that make up the wall can be dismantled. Costs. There will be several aspects to consider. On the one hand take into account the costs of construction, but also the maintenance costs.

On the other, consider that the surfaces of the doors and windows smaller than 5 square meters are not discounted for the calculation of the wall. It is what in the guild is called computing "empty by full". In addition we must contemplate the lintels, special works in brick and moldings are budgeted independently. Do not forget that it is possible to combine different types of walls, to achieve mixed walls. For example, place a dry mounting wall on the inside and an exposed brick wall on the outside. Each owner will take the decision on the system to be used according to their strongest aesthetic, economic or technical needs, which must be compatible with the rest of the possibilities offered by each system.