**Interlocking flooring: the best choice for an automated home**

The **dry interlocking installation system** is a fast, technically complete and aesthetically appealing solution able to engage with the **home automation system**s to create a smart home able to satisfy the most complex design requirements. Let’s see how.

**What is dry interlocking installation?**

The [**Ars Ratio dry interlocking installation**](https://www.casalgrandepadana.it/it/soluzioni/engineering/pavimento-autoposante-interni/)by **Casalgrande Padana** involves bonding each **ceramic tile** to a support and to a special high-resistance perimeter edge, composed - depending on the intended use - of reinforced polystyrene or plaster reinforced with glass fibres.

The end result is a **finished floor** with slim standard 3 mm joints that make it watertight and prevent infiltrations and ensure it can be walked on immediately, as well as guaranteeing stability and resistance to both distributed and concentrated loads.



*Flooring: R-Evolution Black*

**Interlocking flooring for home automation**

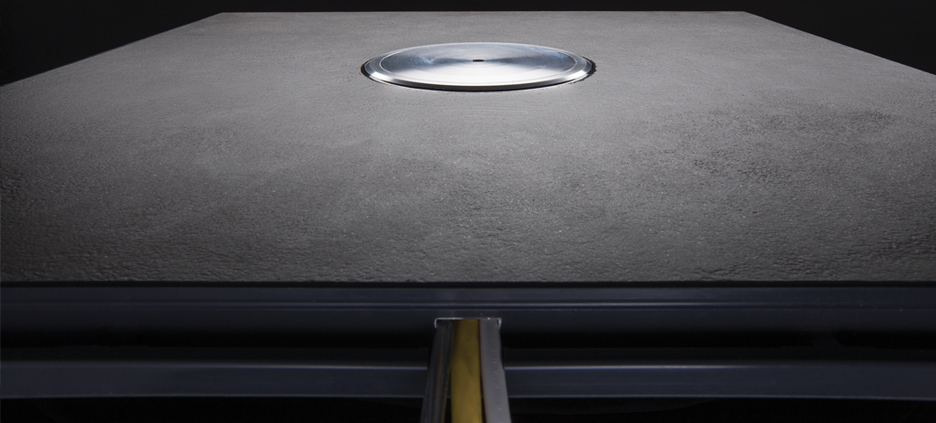
Unlike a traditional system in which the various functions of the home are activated with switches or regulation devices that do not interact with one another, homes with **automation technology** allow for coordinated management of all the devices that are interconnected.

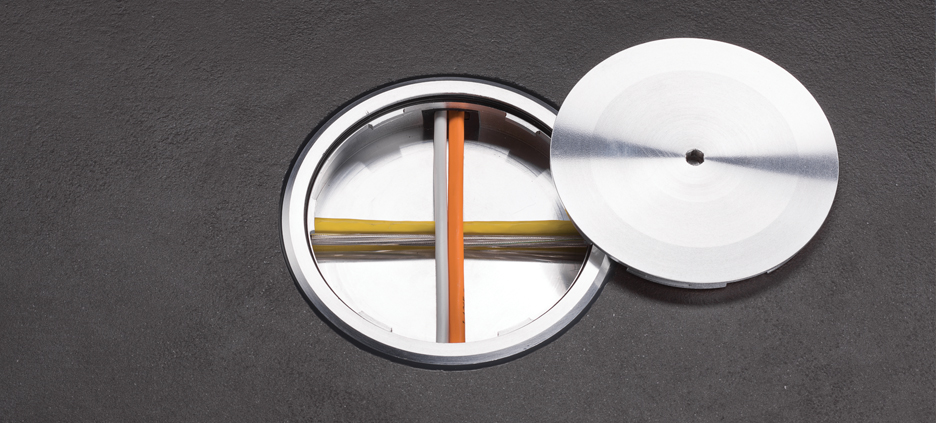
Today, **home automation** systems make it possible to switch lights on and off, automatically open and close curtains, shutters and windows, regulate temperature in multiple areas, manage energy consumption, adjust the irrigation and even sound transmission systems, both inside and outside the home.

**The** [**Ars Ratio dry interlocking installation**](https://www.casalgrandepadana.it/it/soluzioni/engineering/pavimento-autoposante-interni/) **system makes it possible to create a smart floor that integrates sensors and control modules under the laying surface that can be used to adjust lighting and climate control, for a home equipped with automation technology**, boasting a wealth of innovations, able to **reduce energy consumption** and **waste**, as well as to make life simpler by teaming comfort with improved **security**.



Wiring and electrification are also made simple and attractive, with the elegant variable cable duct and electric boxes that can be installed flexibly under the ceramic tile. This synergy is able to boost comfort in your home in one simple move!





**The Casalgrande Padana proposal**

**Casalgrande Padana** offers two different solutions: **AR18** and **AR28**.

**AR18** is an innovative development of the dry interlocking installation system designed specifically for **low-traffic indoor areas**.

Each **AR18** panel is formed by a 10-mm-thick **porcelain stoneware tile**, chosen from the **Casalgrande Padana** range, bonded to a polyurethane support and a perimeter edge in the same material, for a total thickness of about 18.5 mm.

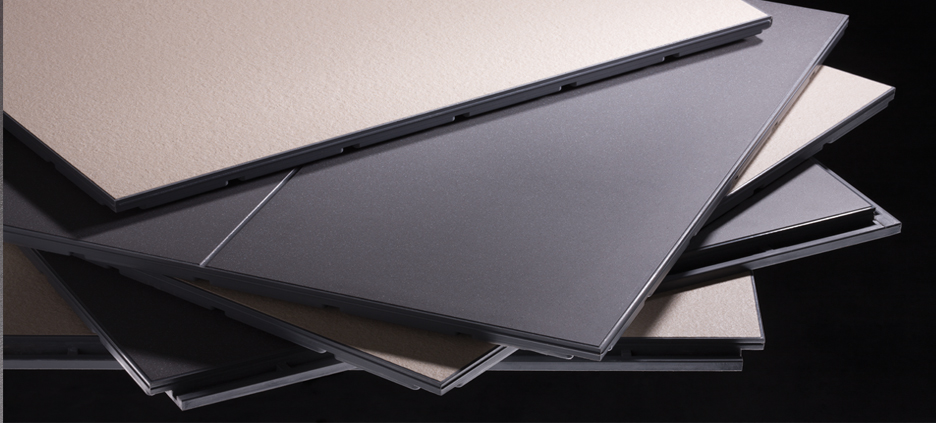
The end result is a finished **floor** with joints of 3 mm, in light grey, or, on request, in the colour preferred, depending on the ceramic surface desired: the **porcelain stoneware tiles** can be chosen from all the 60x60 cm **tiles** in the **collections** **Granitogres**, **Pietre Native** and **Granitoker** and in all the surfaces in the catalogue.

The **AR18** **panels** guarantee numerous benefits, especially for residential renovation projects and constructions where a lower incidence of weight on the building is required. The main advantages include: the simplification of the laying operations, because **AR18** can be laid over an existing floor; a reduction in the inconveniences typically caused by renovation work; no costs for the removal and disposal of the existing flooring; limited modifications required for door and window frames; reduced weight on the load-bearing structure and the floors, and the possibility at any time to easily remove and replace both individual tiles and the whole flooring.



**AR28,** on the other hand, teams the most advanced technology in the field of **self-laying systems** with the unrivalled resistance of the 20-mm-thick **porcelain stoneware** in the [**Extragres 2.0 line**](https://www.casalgrandepadana.it/it/soluzioni/engineering/extragres-20-pavimento-galleggiante-esterno/), and is a valid, advantageous solution for any area where particular load-resistance requisites are specified, and where **anti-slip surfaces** are required.

The 20-mm-thick **porcelain stoneware** is assembled to a special support in polyurethane and to an interlocking edge in the same material to create a joint of about 4 mm. The finished panel, immediately ready for laying without grout, glue or demolition work, has a total thickness of 28 mm.



**The advantages of the interlocking installation with porcelain stoneware tiles**

Thanks to a simple interlocking **anchoring system**, it is possible to create a stable surface with endless configuration options, without gluing and without expensive work to prepare the base underneath.

The elements can be laid quickly, and can be removed just as quickly and used again in another area or for another purpose, thus optimising the investment, the ecological aspects, the recycling chain and the sustainability process.

Repair, extension and re-equipping work can be carried out in a few simple moves, with no dust or dirt!





**Secure anchoring system**

The individual panels are placed directly on the concrete slab or on top of the existing flooring.

The elements are connected using an interlocking perimeter system that guarantees stability and prevents horizontal movements due to tangential loads on the module.

Each interlocked element forms a new **floor** that can be walked on immediately and which gives the setting a new look, without the lengthy work required for traditional laying operations, and guaranteeing a practically clean working area.





**Energy efficiency**

**An essential condition for new-generation buildings is a reduction in the dispersion of heat, to be achieved with all the surfaces throughout the building. To achieve this objective, the Ars Ratio interlocking system** comes with two different configurations for the support package: one saturated with expanded polystyrene and the other with fibre-reinforced plaster. **Polystyrene**, thanks to its extremely low **conductivity, can reduce the dispersion of heat through the floors**, making a positive contribution to the thermal balance of the building.

Modern system design also focuses on the new low-temperature, high-energy-efficiency radiant **heating systems** and fibre-reinforced **plaster, a conductor of heat that facilitates the accumulation and proper radiation of heat throughout settings.**

**Impermeable**

The **interlocking system**, aided by an effective seal, prevents liquids from seeping down under the tiles, protecting the layers underneath.



**Fire-resistant and sound-absorbing**

As regards fire-reaction characteristics, the **self-laying system** combines the incombustibility of **porcelain stoneware** with a non-flammable support material, with fire reaction class Bfl-s1.

**Lastly, thanks to the sound-absorbing characteristics of the support, the Casalgrande Padana interlocking installation system makes a significant contribution to optimising acoustic response compared to traditional flooring. A simple gesture that will transform your home!**

*Seo description: Casalgrande Padana presents Ars Ratio, the innovative laying system for porcelain stoneware covering materials, perfectly compatible with an automated home.*

*Seo title: Dry Interlocking Flooring and the Automated Home: a Winning Combination.*

*H1: Interlocking flooring: the best choice for an automated home.*

*Captions:*

* Dry interlocking installation
* Wiring and electrification