



Designed for possibilities.
Made for people.



Specialist kitchens solutions from Altro

Floors and walls
for commercial kitchens

[altro.com](https://www.altro.com)



“A big advantage of Altro Whiterock is that the walls are now very easy to maintain, which saves both time and energy. And this was the case both when it was all new, but also now, five years later. As for the floor, I’m still happy with it. It still looks fresh, the slip resistance is still high, and we have not had any problems with it during that five years.”

Pernilla Götesson,
Chefkok, Gräshagsskolan

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With over 65 years’ experience in kitchen solutions, we understand the challenges faced when working in a busy kitchen, or being responsible for those who are.

We have developed floors and walls to meet these challenges head on. It comes down to one thing: a kitchen solution that performs as you expect and need it to. For its lifetime.

Be it durability, supporting hygiene needs - including cleanability - preventing slip accidents, compliance with industry standards, impact sound reduction, or supporting tired feet, we’ve got you covered. And it doesn’t mean a compromise on looks: Altro Whiterock™ hygienic walls system and Altro Stronghold™ 30 specialist safety flooring are designed to look good, giving staff a space to be proud of.

Our support doesn’t begin and end with your product choice. As a family-run business we value working together and will be with you from inspiration to installation and beyond. That means help specifying floors and wall cladding, guidance when installing and maintaining your kitchen solution, and support, if needed, for its lifetime of the solution. And with life expectancies of up to 35 years, that’s saying something.

Altro Stronghold 30 / K30

Altro Stronghold 30 is a specialist safety floor designed to perform in the conditions you expect in a commercial kitchen: heat, cold, spills and splashes, dropped cooking utensils.

A space with such a high slip risk needs our highest rating for safety (PTV \geq 55, R12) and is designed to minimise this risk with common contaminants such as oil, flour and fats, reducing the chance of a slip to one in a million for the lifetime of the floor.

We know that keeping noise levels down in the kitchen is better for staff wellbeing. If your kitchen is next to a restaurant, or above an office or hospital ward, noise can also affect those trying to work, relax or recuperate. At 3mm thick with 10dB sound reduction, Altro Stronghold 30 helps prevent sound travelling. If a sharp knife is dropped, there's additional protection to help prevent it piercing through to the subfloor.

And that thickness also provides comfort underfoot, making life more comfortable for staff working long shifts - we've had feedback that kitchen staff have fewer aches in their feet and knees once Altro Stronghold 30 was installed.

This specialist safety floor isn't designed only for where the cooking action is. To ensure you have one floor that can cope with both the heat of the kitchen and the cold of the freezer, Altro Stronghold 30 can withstand temperatures +60°C, right down to -30°C.





Altro Whiterock White

The Altro walls system was introduced to the market over 40 years ago and has been a market leader ever since. And with four decades of experience, we know Altro Whiterock performs as it should, for life. This effective, impervious walls system includes the reassurance of up to 30-years' system guarantee and delivers a safe, hygienic, fire-compliant walls solution that looks good and is easy to maintain.

Altro Whiterock is a 2.5mm thick wall sheet that's CE and UKCA marked and complies with all European health, safety, and environmental protection standards. It is also impact-resistant, making it more resilient than tiles and preventing damage that could harbour bacteria, and there's no grout to maintain and clean. In fact, Altro Whiterock can be hot-welded for a joint-free installation, further reducing the risk of water and bacteria ingress. This resilience and flexibility when

it comes to installation methods makes Altro Whiterock particularly suitable for commercial kitchens and adjacent food production areas. And when it comes to cleaning, it can simply be wiped – but when a deep clean is needed, steam or power washing it is no problem.

With an extensive colour palette, you can zone areas, brand a space or create a theme with Altro Whiterock Satins, the glossy Altro Whiterock Chameleon, Altro Whiterock DigiClad (Custom), or opt for the classic

Kitchens: complete technical system guide

You can see here how Altro Stronghold 30 and Altro Whiterock come together to create a durable, reliable kitchen solution.



1. Specialist safety floor for commercial kitchens

Altro Stronghold 30 / K30 reduces the risk of a slip to one in a million, even with grease, oils and fat. When used with Altro Whiterock, it creates a hygienic, impermeable, HACCP-approved system.

2. Altro Whiterock hygienic walls system

Altro Whiterock and Altro Stronghold 30 complement each other perfectly. Both can be sealed or hot-welded to produce an attractive, hygienic and water-resistant system.

3. Fitting the floor to a drain area

Vinyl clamping drainage systems must always be used.

4. Stainless steel splashbacks.

Behind ovens, cookers and other sources of heat above 60°C, we recommend the use of stainless steel fixed with AltroFix W139 adhesive. To transition between the splashback and the surrounding wall sheet, we offer a specially designed trim.

5. Floors adhesive

For areas where there will be regular spillages, we recommend a moisture-tolerant two-part adhesive. Please refer to the adhesive manufacturer's product data sheet. Alternatively, please consult our Technical Services team for further information.

6. Floor weld

We offer weld rods that match our flooring.

7. Thermoformed corners

Thermoformed corners look great and, because there is no break in the sheet, are a more hygienic way to fit around corners. We work on thermoforming in our Altro Whiterock training school – ask your Altro consultant for more information

8. Sealing between sink and floor using AltroMastic

The best result is achieved by removing the sink before fitting the floor, putting the co-ordinating colour mastic in the fixture holes and screwing the sink back in. If the sink can't be removed, the floor will have to be cut to fit around it and then coved.

9. Concealed transition strip

A concealed transition strip is mechanically fixed or bonded to the wall before the Altro Whiterock wall sheet is fitted. This produces a small rebate at the base of the wall panel allowing the Altro Stronghold 30 to be fitted neatly into place up behind the wall sheet. Using a concealed transition strip allows water to run off the walls and onto the floor without causing damage or breaching the junction between wall and floor.

10. Hot weld

Altro Whiterock can be hot welded with a co-ordinating weld rod. Once welded all exposed edges and abutments should be sealed with AltroMastic 100, in a co-ordinating colour, to complete the system.

Tried and tested solutions

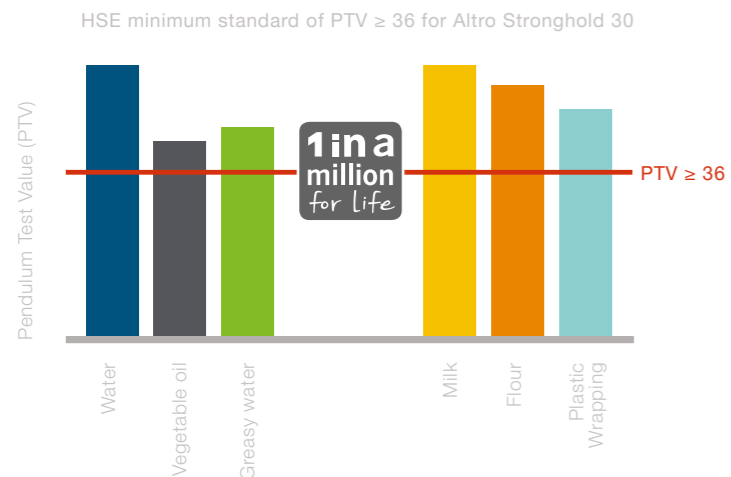
Our solutions are used in some of the most demanding built environments possible, where consistent performance is paramount to the success of the spaces they occupy.

Floors

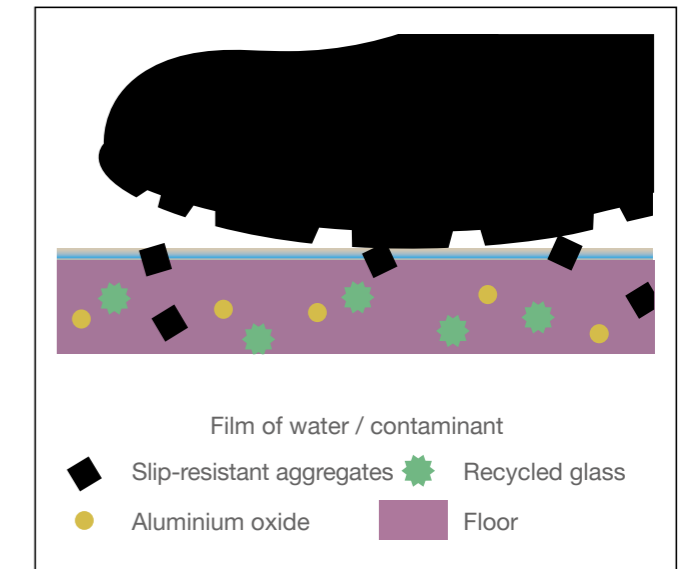
The Pendulum Test Value (PTV) gives an accurate indicator of floor surface slipperiness. Flooring that achieves a wet result of ≥ 36 on the Pendulum Test has a low slip potential. A floor's 'R' value is how it measures following the Ramp Test. But we don't believe that just one of these tests gives you enough information.

We combine our tests so that our floors have both an R rating and a Pendulum Test Value (PTV). Only when you see the 'R' rating combined with $PTV \geq 36$ can you be sure that your floor is safe enough to reduce the risk of a slip to one in a million. But when it comes to working kitchens, there are constant spills and splashes – and with little time to clean during a shift, these can cause slip accidents. And not all $PTV \geq 36$ floors will prevent slips with contaminants, leaving staff vulnerable.

Altro Stronghold 30 was developed and tested to ensure it reduces the risk of a slip to one in a million with contaminants including grease, fat, cooking oil, flour, milk and food particles.



Some floors' slip resistance will wear away as the floor is used. Altro safety floors have particulate running throughout the wear layer to maintain slip resistance for life.



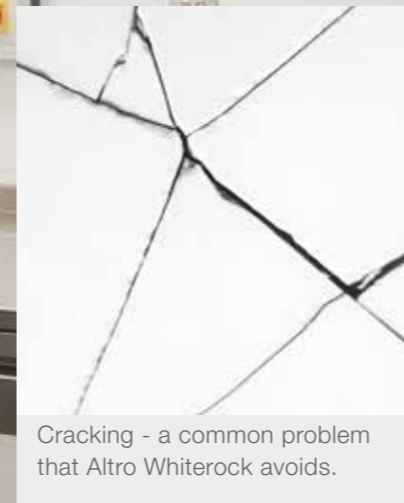
How likely is it that someone will slip on your floor?

This shows a floor's PTV rating, alongside the slip risk when water is present. Each of these floors could be rated R10.

PTV	Potential to slip classification	Risk 1 in:
≥ 36	Low	1,000,000
34	Moderate	100,000
29	Moderate	10,000
27	Moderate	200
24	High	20
18	High	2

Did you know?

In 35% of cases, incapacity for work caused by slipping or falling accidents lasts at least one month.



Cracking - a common problem that Altro Whiterock avoids.



Grout can shrink and is hard to clean.

Tried and tested solutions

Altro Whiterock impact test

Tiles are proven to crack and shatter more easily than Altro Whiterock, and their damaged surfaces can harbour and provide breeding grounds for microorganisms more readily than undamaged, smooth surfaces. Furthermore, individual damaged tiles are extremely difficult to remove.

Altro Whiterock has extremely high resistance to impact according to the BS EN438-2-1991 Drop Ball Test. Impacts that leave ceramic faces damaged and vulnerable to water ingress barely make a scratch on this tough surface, proving that Altro Whiterock provides a smooth, tough, durable, stain-resistant surface.

Hygiene and tiles

- Grout can become porous with age and harbour microorganisms, providing breeding grounds for bacteria and viruses
- Grout is difficult to clean, making it even harder to remove microorganisms. It can also shrink and cause gaps between tiles, providing perfect areas for microorganisms to multiply
- Grout and tiles can stain when cleaned with detergents
- Grout gets dirty and becomes discoloured from certain detergents, soiling and the build-up of body fats
- If grout is stained / discoloured, the aesthetics are spoiled. If an area of grout is replaced, it can look dramatically different from the rest. Equally, if a damaged tile is replaced, unless there is another from the same batch to replace it, there will be a visual colour difference

Reassuringly compliant

When you choose Altro Whiterock wall cladding or Altro Stronghold 30 for your kitchen project, you can rest assured they meet the required building, fire, environmental and food safety standards.

Air quality

Building Research Establishment Environmental Assessment Method (BREEAM) is the world's leading sustainability assessment method for masterplanning project, infrastructure and buildings. BREEAM-rated developments are more sustainable environments that enhance the well-being of the people who live and work in them. Altro Stronghold 30 and Altro Whiterock comply with the requirements of Hea 02 (Indoor air quality) under BREEAM 2018.

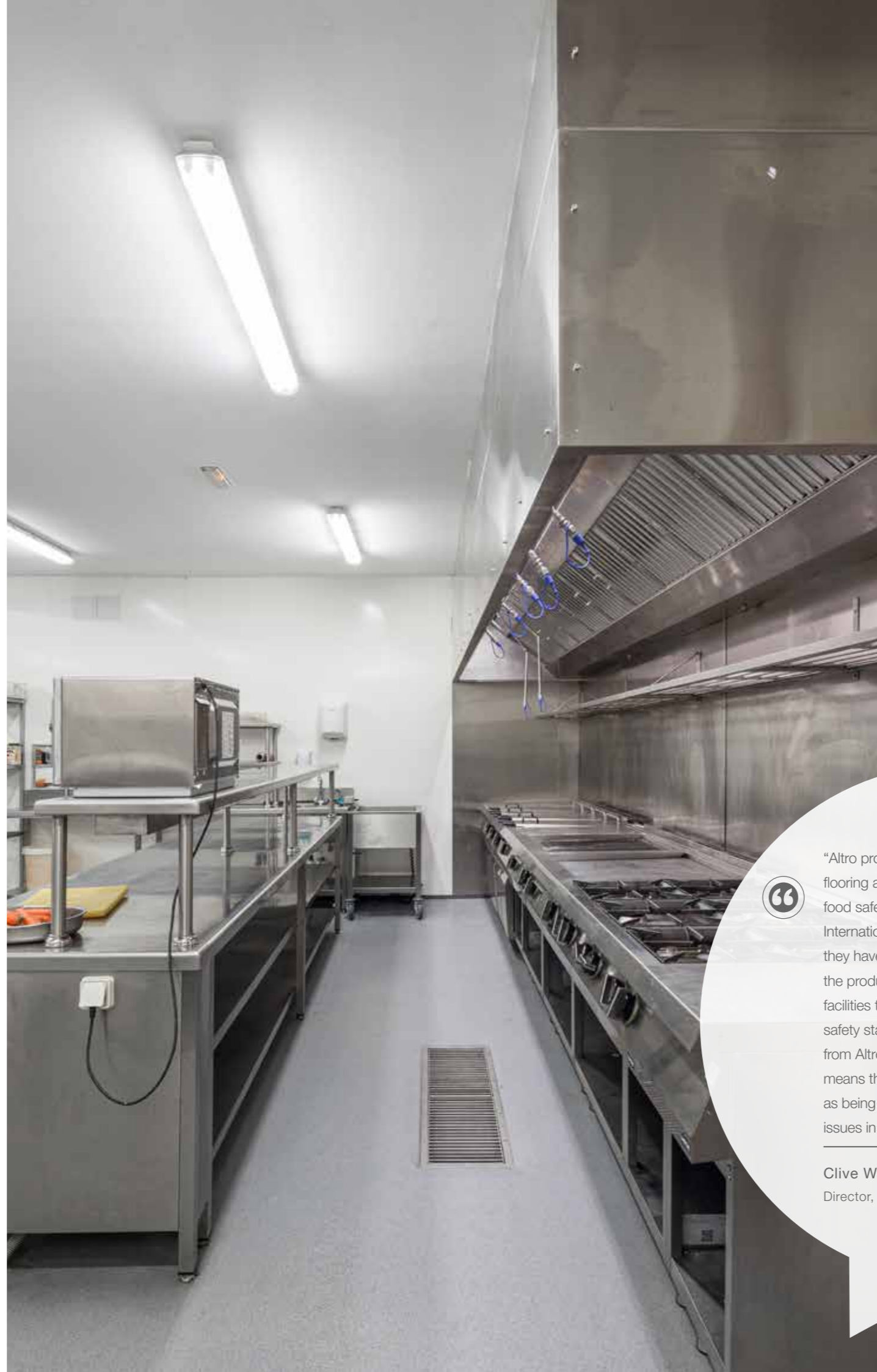
Additionally, Altro Stronghold 30 has M1-classification - this means it meets set limit values for the emission of VOC, formaldehyde, ammonia, plus odours associated with the material.

Fire

Altro Stronghold 30 achieves a Class Bfl s1 according to EN 13501-1 and Altro Whiterock achieves a Class B s3 d0 according to EN 13501-1.

Food hygiene

Altro Whiterock and Altro Stronghold 30 meet all current EU regulations on health and hygiene including Regulation (EC) No 852/2004 on the hygiene of foodstuffs.



CE-marked

By placing the CE mark on Altro Whiterock and Altro Stronghold 30, you can be confident that these solutions show conformity with EU safety, health or environmental requirements.

HACCP-approved

Hazard Analysis and Critical Control Point (HACCP) is an international system for food safety management. It is a legal requirement in Europe under EC Regulation 852/2004. HACCP requires a risk assessment for every food preparation area identifying 'critical points' where food safety hazards could arise. Hazards include:

- contamination by staff or poorly maintained fittings or equipment
- chemical, physical or allergenic risks, caused by ingredients, handling, equipment or fittings, including floors and walls

Altro products are one of the few worldwide floors and walls products to have achieved HACCP International certification. We test our product in-situ, and have worked with customers, designers and installers for years, so we can provide you with the highest standard system on the market.



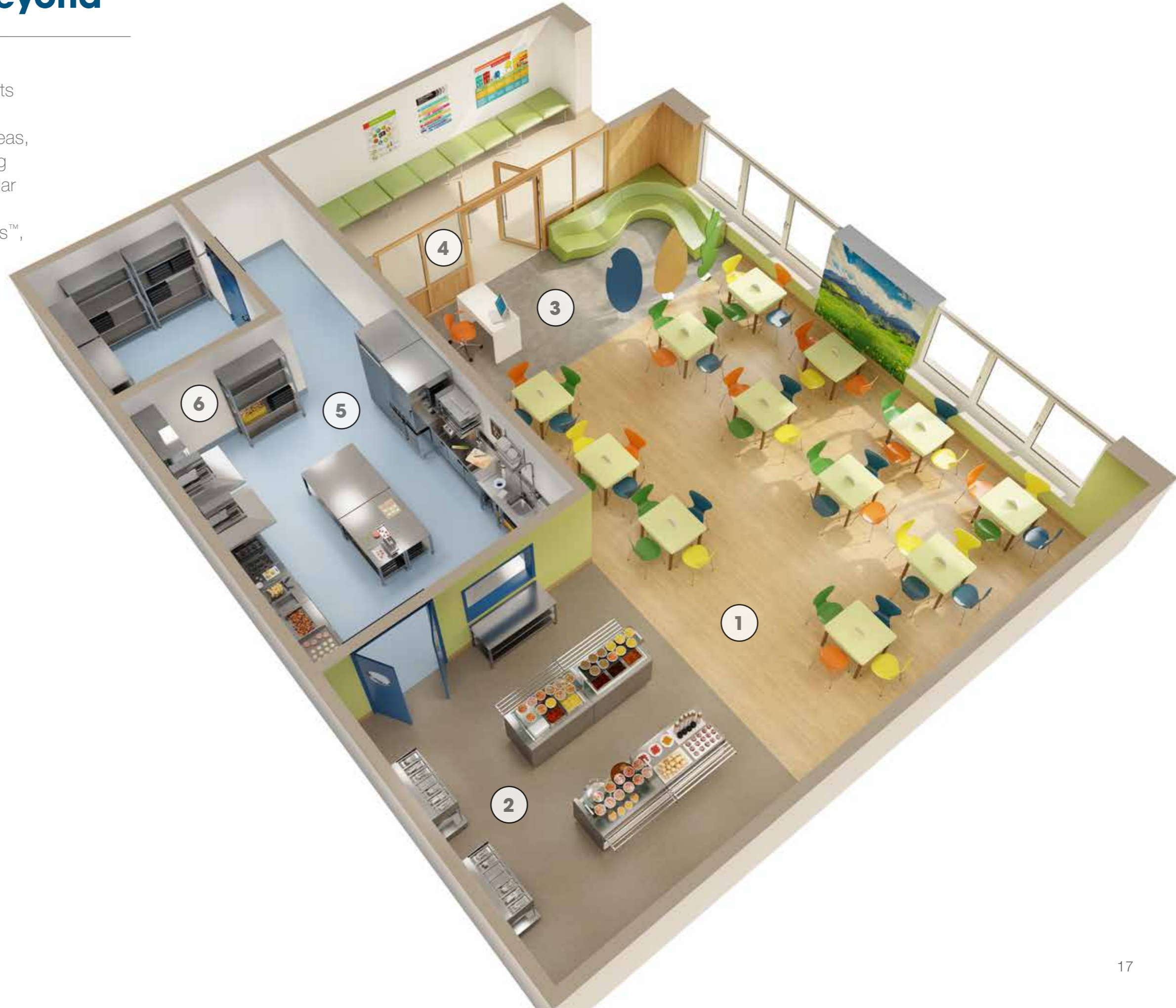
"Altro products are one of the few worldwide flooring and walling products to have achieved food safe, product certification from HACCP International. In meeting the scheme's requirements, they have expert, and third party confirmation, of the products' suitability for use within food processing facilities that are governed by the world's highest food safety standards. Both the flooring and walling products from Altro offer a seamless and impervious solution which means that there is nowhere for bacteria to hide, as well as being easy to clean. These are both vitally important issues in the food industry."

Clive Withinshaw,
Director, HACCP International

For kitchens and beyond

While we have your commercial kitchen covered, we also have a solution that meets the needs and challenges of the adjacent areas – including back of house, dining areas, a high-end reception area or staff changing rooms. This includes the decorative modular floor (LVT) Altro Ensemble™, our specialist safety floor for shower areas, Altro Aquarius™, and, for areas where prolonged downtime is not an option, we have Altro Cantata™ and Altro XpressLay™, our adhesive-free floors that halve installation time.

For more information on choosing the right solutions for your installation, please take a look at the 'products' section of our website, or speak with your Altro consultant, who will be able to help.



1. Altro Cantata™
High-end look. 14dB. No adhesive. Sustainable and time / cost-saving.
2. Altro Classic™ X25
Durable. Tough. R11 slip resistance from contaminants.
3. Altro Ensemble™ / M 500
Designer look LVTs. 15dB. Comfort underfoot.
4. Altro Orchestra™
Multiple shades and designs. 15dB sound reduction.
5. Altro Stronghold™ 30
Specialist safety floor for kitchens. Protects from slips with grease, oils and fats. Comfort underfoot.
6. Altro Whiterock White™
Proven alternative to ceramic tiles. Impact-resistant, impermeable, grout-free.



“In addition to the product benefits I was impressed with the service of Altro: the information and guidance before purchase, the recommendation of an installation company and the smooth running of the installation. It was coordinated perfectly and completed on a tight time schedule,”

Norbert Stocker,
The Stockerhof

Support before, during and after installation

Our aim is to get you the information, service and support you need, quickly. And we do this in a variety of ways:

Technical support

Altro's technical services teams are here to help you, wherever you are. They have detailed knowledge of substrate technology and any possible issues that might arise. They can offer you solutions and information on different installation techniques. So, whether you are a contractor, architect, designer or end user, if you need them, please get in touch by calling +44 (0)1462 489516.

Technical documents

Whether technical datasheets, BIM components or performance declarations, you can access this key information directly via the support section on our website, or by speaking with your Altro consultant.

Installation guidance

You can find straight-forward installation guidance for all our floors and walls on our website – but our technical services team are available on the telephone to answer any specific questions you have.

Customer care

Our customer care team will support you before, during and after installation; the teams are comprehensively trained and can answer your queries on anything from technical issues to sample requests. They're just at the end of the phone +44 (0)1462 489516 or email enquiries@altro.com.

Cleaning

Your Altro consultant can provide information on cleaning and maintenance to help make sure that your product continues to give you complete satisfaction for the lifetime of the installation. You can also find downloadable cleaning guidance in the support section of our website.

Training

We run highly popular, international training schools helping to educate a network of professional installers in the latest techniques and to promote best practice. We stand behind our installers and always recommend that you use Altro trained installers.

Samples

You can order free samples quickly and easily through our website, or by speaking with our customer care centre. All sample requests are processed the day they are placed.

Design inspiration and specification guidance

If you need support choosing the right product for the right area, or inspiration for designs that will work for your space, we can help.

Our team are on hand to talk through your project and give guidance on the best floor and wall options for your space. Just contact your Altro sales consultant direct, or get in touch with our customer care centre.



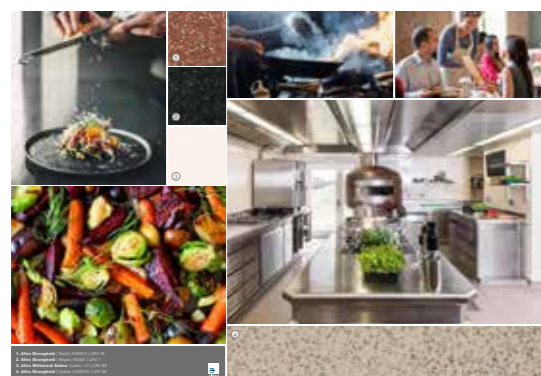
Altro Insta-space

Altro Insta-space is ideal if you can't bring colleagues, contractors or designers into your space and want to share your ideas, or you need a visual way of helping you settle on a shade. Just upload your own photo, choose your products and shades and you can visualise Altro floors and walls for free, in real time. Try it here: www.altro.com/uk/inspiration/altro-insta-space



Case studies

You've told us that seeing real floors and walls in real commercial kitchens can help when choosing products. We have multiple examples of finished projects, alongside customer testimonials – just ask your Altro consultant or search 'case studies' on our website.



Colour and design inspiration

We have multiple moodboards and colour palettes in the 'inspire me' section of our website to help you choose the look you want, alongside a gallery of images and short films showcasing completed kitchen projects.



Technical table

Altro Stronghold 30

Fire behaviour tested in acc. with	EN ISO 9239-1 EN ISO 11925-2 EN 13501-1	≥ 8 kW/m ² Pass Bfl-s1
Classified in acc. with		
Slip resistance	EN 13893 PTV EN 16165 Annex B EN 13845 Annex C	≥ 0.30 / DS ≥ 55 R12 ESf
Sound insulation	EN ISO 140-8	ca. 10 dB
Flooring type	EN 13845	Safety flooring
Thickness	EN ISO 24346	3 mm
Wear layer thickness	EN ISO 24340	3 mm
Roll dimensions	EN ISO 24341	2 m x 15 m = 30 m ²
Weight	EN ISO 23997	4.0 kg/m ²
Residual indentation	EN ISO 24343-1	≤ 0.10 mm
Classification for use	EN ISO 10874	34, 43
Flexibility	EN ISO 24344	Pass
Light fastness	EN ISO 105-BO2	≥ 6
Castor chair abrasion	EN 425	Yes, type W
Wear resistance	EN 13845 Annex D	≤ 10% / 50000 cycles
Chemical resistance	EN ISO 26987	Good
Underfloor heating	EN 12524	Suitable
Electrical behaviours	EN 1815	≤ 2 kV, antistatic
VOC emissions	CDPH 1350 / Floorscore	Approved

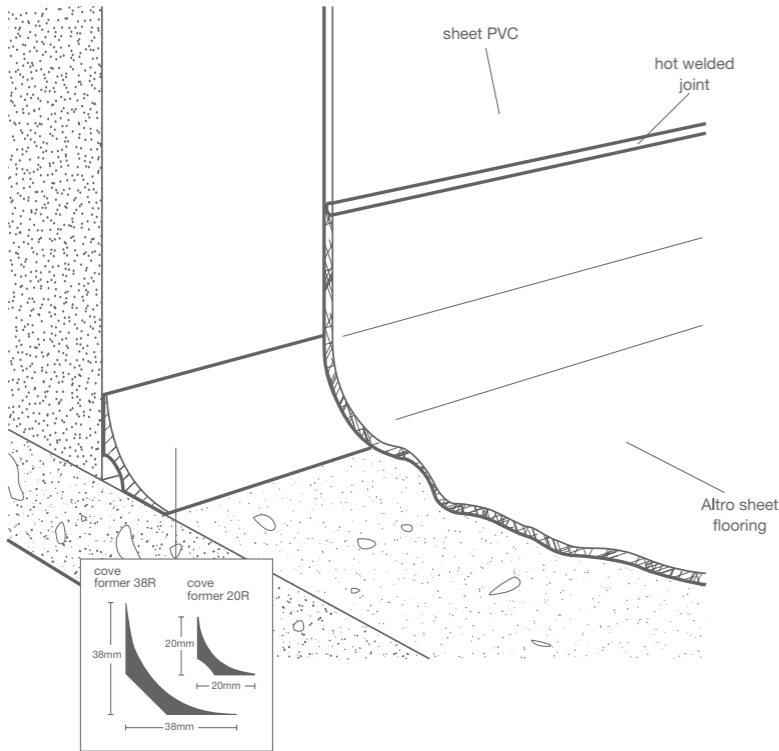
Altro Whiterock White

Surface finish		Satin
Thickness		2.5 mm
Size		2500 mm x 1220 mm 3000 mm x 1220 mm
Weight		3600 g/m ²
Maximum service temperature	ISO 527	60°C
E-modulus of elasticity	EN ISO 24340	2950 MPa
Notched Impact resistance	ISO 179/1ea	9.5 KJ/m ²
Flexural strength	ISO 178	70 MPa
Tensile strength	ISO 527	52 MPa
Shore D hardness	ISO 868	76
Thermal conductivity- 'K Value'	EN 12524	0.17 W/mK
Water absorption	ISO 62	≤ 0.1%
Moisture vapour transmission rate (MVTR)	ASTM E96	≤ 0.12 g/m ² /24h
Fire performance	EN 13501-1	B- s3, d0

Technical drawings - floors

Self-coved and welded to wall mounted sheet PVC

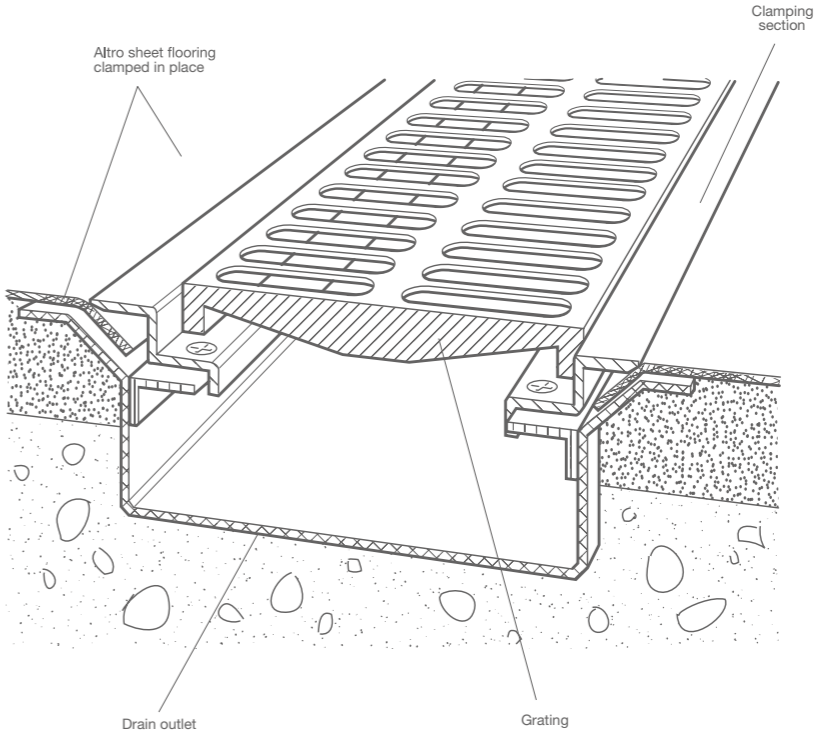
D7/03/05



Technical drawings - floors

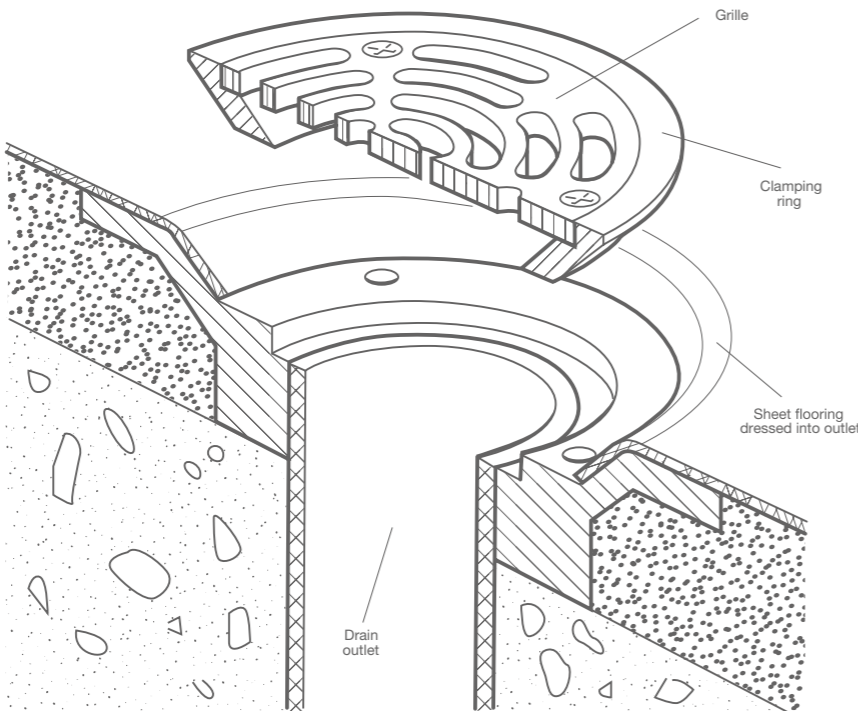
Transition with clamping channel

D14/03/05



Transition with clamping drain

D13/03/05





Pielavesi, Finland

Altro deliver safety and hygiene for nursing home and kitchen

Issue

The municipality of Pielavesi in Finland needed a new nursing home and a modern central office to replace outdated facilities.

The decision was taken to create a new shared building that would provide a resident-friendly nursing home that is efficient to run, and also provide combined kitchen facilities to replace three outdated kitchens that had been operating across the municipality.

Approach

A new building to combine kitchen facilities and a modern nursing home needed careful planning.

The new central kitchen provides 1,100 meals a day for Pielavesi municipality, not only in the nursing home, but also in schools, kindergartens, health centres and homes.

Pielakodin 60 offers enhanced service housing. The modern nursing home considers ways to address issues to make life easier for both residents and staff.

Smart product choices were important, in terms of safety, hygiene and maintenance, as well as staff and resident wellbeing. Careful consideration for the needs of older residents led to product choices that were matt and without sparkle.

Solution

In the nursing home, Altro Aquarius safety flooring was used in the WC, shower rooms and sauna facilities. Altro Aquarius was developed for lasting performance in wet and dry, shoes or barefoot. The flooring has a matt finish.

Altro Whiterock hygienic wall sheet was installed in the central kitchen for smooth and hygienic surfaces that are easy to clean and maintain. Altro Whiterock Digiclad (Custom) was used to add colourful artwork to the walls without compromising on hygiene.



"It's great that there is no need to worry about broken tiles or dirty grout that may harbour bacteria. The new wall sheet is easy to keep clean, and the Altro Digiclad makes the area more visually pleasant for kitchen staff."

Janne Maksimainen,
Food Service Manager



1. Altro Whiterock
Digiclad™ (Custom)

2. Altro Whiterock White™

Samples

If colour choice is critical, please request a sample of the material

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+44 (0) 1462 707 700 enquiries@altro.com



Altro. Altro, Designed for possibilities. Made for people. Altro Ensemble, Altro Cantata, Altro Orchestra, Altro Stronghold, Altro Aquarius, Altro Classic, Altro Whiterock White, Altro Whiterock Digiclad (Custom), and Altro XpressLay are trademarks of Altro Limited.

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