

# **Altro Transport installation services**

Save time, weight, and waste with our portfolio of installation services

altro.com

# Introduction

Altro work closely with prominent Original Equipment Manufacturers (OEMs) around the world to guarantee the supply of intelligent, high durability flooring for public transport applications. However, our involvement doesn't end there.

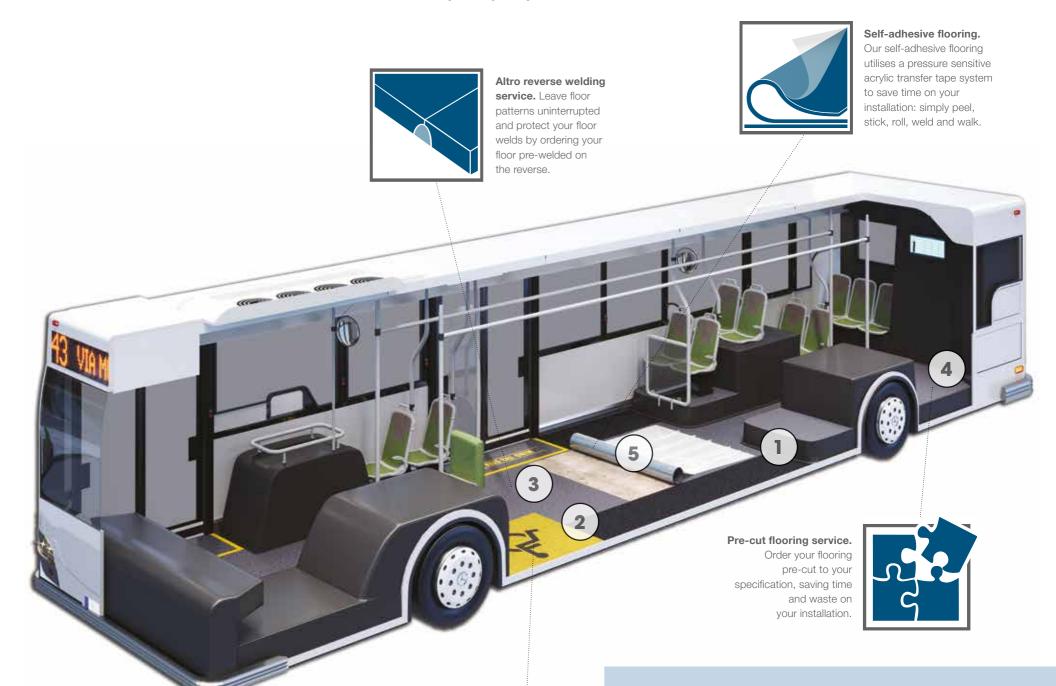
To better support the needs of our customers in achieving both efficiency and sustainability targets, Altro has developed a suite if installation services designed to streamline and enhance fitting, while minimising time, weight and waste.

Working with the required dimensions for the intended vehicle, we can deliver floors pre-cut, pre-welded, or with a pre-applied adhesive backing. This not only removes considerable time and effort from customers to facilitate more efficient assembly, but can also significantly reduce waste and increase material recycling.

These services are fully compatible with our full range of transport floors and with each other so can either be used in isolation or combined for accumulative benefits. However you choose to use them we're confident you will find Altro's installation services the perfect fit for any vehicle.

# Altro solutions for city bus

The following floor plan shows how Altro services work on a heavy-duty city bus.



### Laminated logo service.

Our multi-layered logo tiles offer extreme water resistance and great flexibility for easy installation and coving.



### 1. Nosings and trims

Our range of nosings and trims are ideal for emphasising high risk areas to passengers and protecting floors from daily wear.

### 2. Laminated logos

Laminated logos provide an excellent solution for wayfinding and signage.

### 3. Reverse welding

Flooring seams welded on the reverse of the floor for greater aesthetics and a more reliable join.

### 4. Pre-cut floors

Flooring delivered pre-cut to your specification, ready for install.

### 5. Self-adhesive

Flooring with adhesive pre-applied: simply peel, stick, roll, weld and walk.



# Pre-cut flooring service

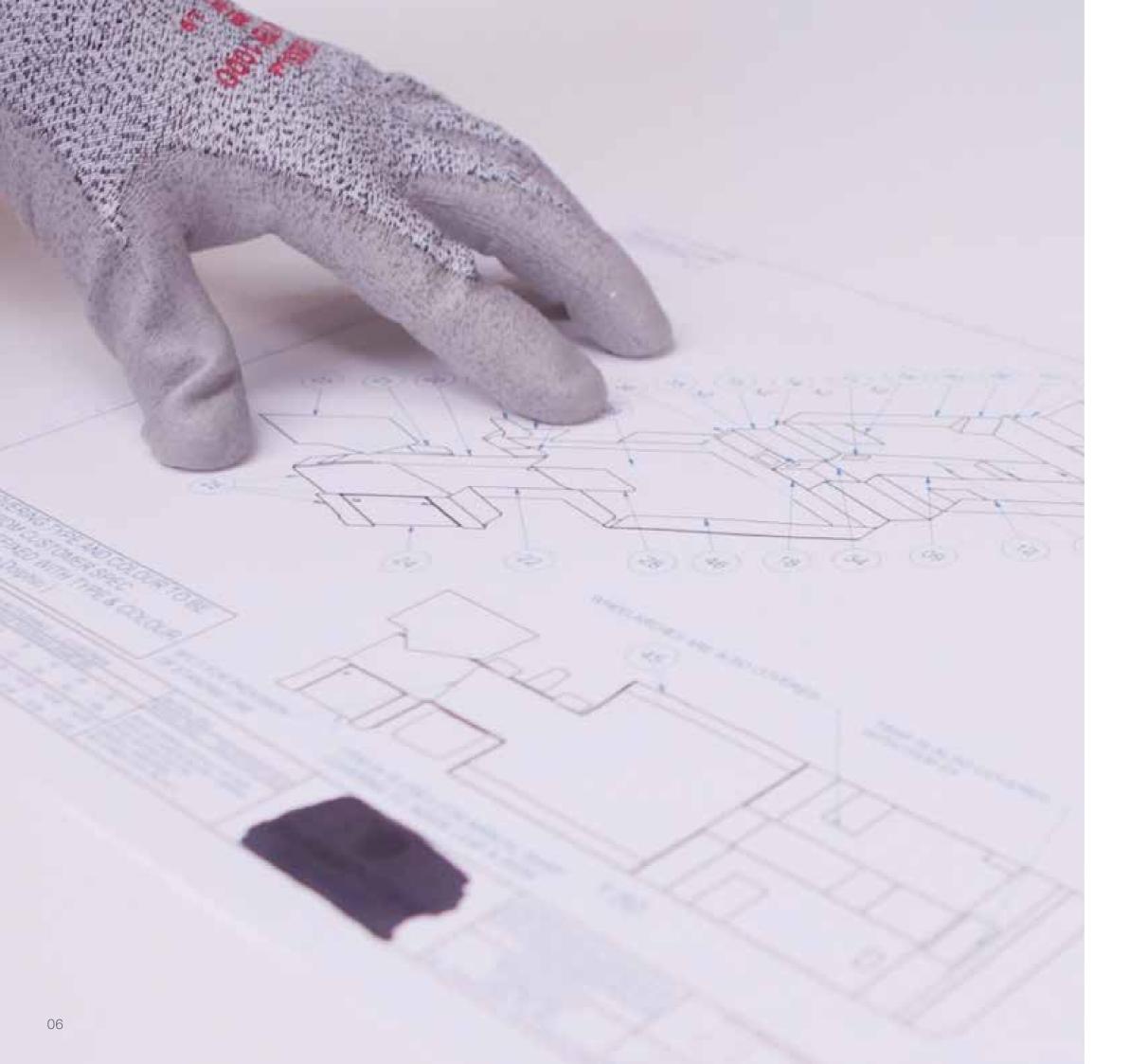
# Plan for a fast, easy installation

Simply choose your flooring and send us your bill of materials alongside any relevant technical drawings in .dxf format, and we'll do the rest. We'll use our state-of-the-art in house cutting technology to pre-cut your flooring order into handy, smaller pieces ready to unroll and install. All pieces will be clearly labelled and packed according to your specific requirements and panel locations.

# **Cutting edge efficiency**

Altro's pre-cut flooring service for transport is designed with the needs of both manufacturers and operators in mind: save time and reduce waste on your vehicle installation, and create a safer working environment for your technicians with reduced manual handling and less risk of cutting injuries. Selecting our pre-cutting service for your transport installation is a more efficient and less wasteful way to achieve consistent, cost effective, high-quality installations for vehicles. It couldn't be simpler.





# Cut time on your installation

# Save time

With our pre-cut flooring service, time spent measuring and cutting flooring – as well as the extra space needed to do so – is a thing of the past. Your flooring will be delivered in handy smaller pieces in individual rolls, for easier manual handling. Once unrolled and acclimatised, simply dry fit the pieces into place, trim if needed, then stick down, roll and weld.

# Save waste and the planet

Play your part in reducing waste in your vehicle assembly: receive your flooring requirements pre-cut and ready for installation. We set up our in-house cutting technology so that off cuts and waste are minimal – and, in the UK, even those go into our in-house recycling system to save them from landfill. We are proud that Altro has sent zero waste to landfill since 2014.

# **Endless design possibilities**

Our in-house cutting technology has the capability to accurately realise intricate shapes, logos and designs with all our transport floors. Whether you're looking to cut your company logo, instructional and guidance text, or even your service city's skyline for a touch of visual flair, speak to us to find out how we can make your design dreams a reality.



# **Self-adhesive** floors

# **Backing your decision**

Self-adhesive floors utilise a pressure sensitive backing system to enhance efficiency. Flooring can be laid with minimal processes, while still providing maximum performance: simply peel, stick, roll, weld and walk.

# Universal appeal

Altro's self-adhesive service for transport floors is designed with the needs of both manufacturers and operators in mind: save time, waste, and weight on your vehicle, bringing benefits during installation, in service, in maintenance and beyond.

# Hold tight

All existing Altro vinyl and acrylic transport flooring products are available in a self-adhesive format, without any compromise to product performance or compliance. Selecting a self-adhesive transport floor is a cleaner, more efficient way to achieve consistent, cost effective, high-quality installations for vehicles. It couldn't be simpler. Try it once and you'll stick with it.





# Benefits at installation and beyond

# Save time

With our self-adhesive service, almost all adhesive application and curing time is eradicated. Simply peel away the white backing to reveal the pre-applied adhesive and install the floor, just as you would in a traditional installation. Once the floor is in place, it can be rolled, welded and walked on immediately, saving precious hours and allowing the rest of the vehicle installation to continue without delay.

# Save weight

Altro's self-adhesive utilises a uniform, pre-applied adhesive backing, making for up to 60% weight saving per square metre compared to traditional contact adhesive. Across your whole fleet or train set, the weight saving per metre can add up to a big saving with a big impact on fuel economy. Our self-adhesive is a strong choice for electric or hydrogen-powered vehicles, where getting maximum power from your fuel is paramount.

Here's some examples of how much weight you could save:

	Typical 12 car train set	Typical single deck bus
Altro Transflor Tungsten with self-adhesive	1,953.5kg	
Altro Transflor Tungsten with traditional contact adhesive	2,015.2kg +61.7kg	
Altro Transflor Tungsten with two-part polyurethane adhesive	2,076.9kg +123.4kg	
Altro Transflor Chroma EV with self-adhesive		67.56kg
Altro Transflor Chroma EV with traditional contact adhesive		70.15kg +2.59kg per vehicle
Altro Transflor Chroma EV with two-part polyurethane adhesive		72.74kg +5.18kg per vehicle



# Reverse welding service

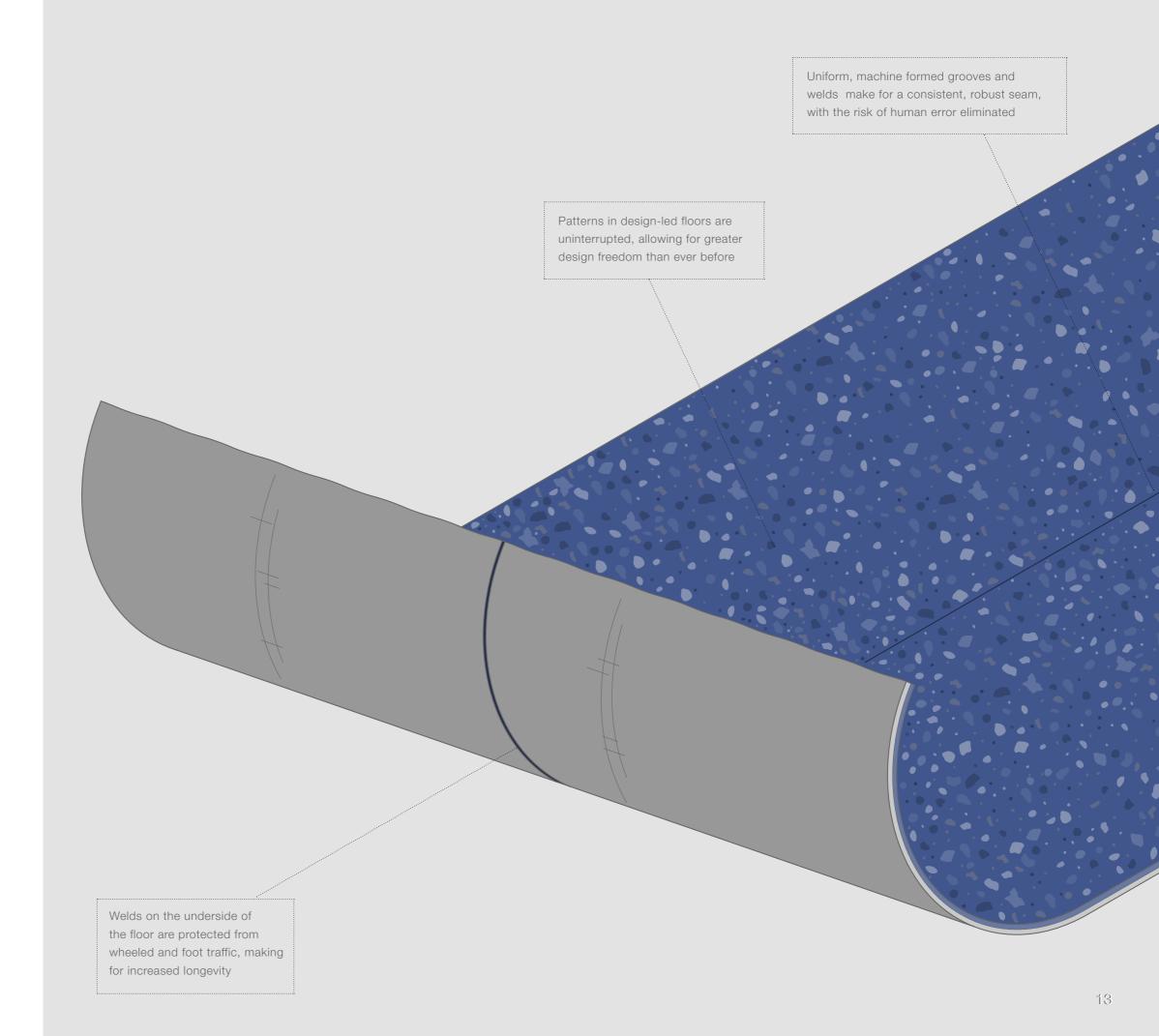
Altro's reverse welding service uses a mechanical process that produces welds at a consistent depth and speed, creating a stronger, more reliable seam which can stand up to the daily wear on all types of public transport including city and commuter buses, intercity, commuter and light rail, and autonomous vehicles.

# We'll do the hard work

Our reverse welding service takes one of the more highly skilled elements of the flooring installation away from the vehicle manufacturer. With our process, human error is eliminated, lessening the risk of seam failures in service.

# A faster, more reliable installation

With Altro's reverse welding service, the flooring for each vehicle is delivered pre-cut and pre-welded ready for installation, cutting installation time as well as making the process easier and therefore less open to errors for a more reliable performance.



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# Left: traditionally welded floor; Right: reverse welded floor 14

# **Hidden benefits**

Our reverse welding service is compatible with all of our PVC and acrylic floors for transport, but makes the best impression on our design-led ranges. Whether you've chosen a wood-look floor, a scattered, mineral pattern, or your own custom design, using our reverse welding service means that seams are difficult to see, leaving your flooring design uninterrupted. With these smaller, harder to see seams, dirt build up is minimised, making for easier cleaning.

# Protect your subfloor

Our reverse welding service takes one of the more highly skilled elements of the flooring installation away from the vehicle manufacturer. With our process, human error is eliminated, mitigating the risk of seam failures in service.

Keeping welds out of sight also means that they're kept out of the way of harm – by welding on the reverse of the floor, it means that welds are protected from potentially damaging wheeled and foot traffic. A correctly heat-welded flooring seam is the best way to protect your subfloor from water ingress, and a reverse weld from Altro is an even more reliable way to take your subfloor protection one step further. A reverse weld is a stronger, better protected weld, giving sustained subfloor protection which means less downtime for maintenance.

The Altro reverse welding service is stringently vacuum- and water-tested to EN 13553:2017 and DVS 2225-3, giving you peace of mind that your vehicle is protected from subfloor damage. With this new service, Altro's renowned long-lasting durability now extends to the welding processes as well as the floor itself.



# Laminated logo service

Altro's pre-cut logo service provides robust signage solutions to transport environments which brings benefits to operators and manufacturers alike.

# **Subfloor protection**

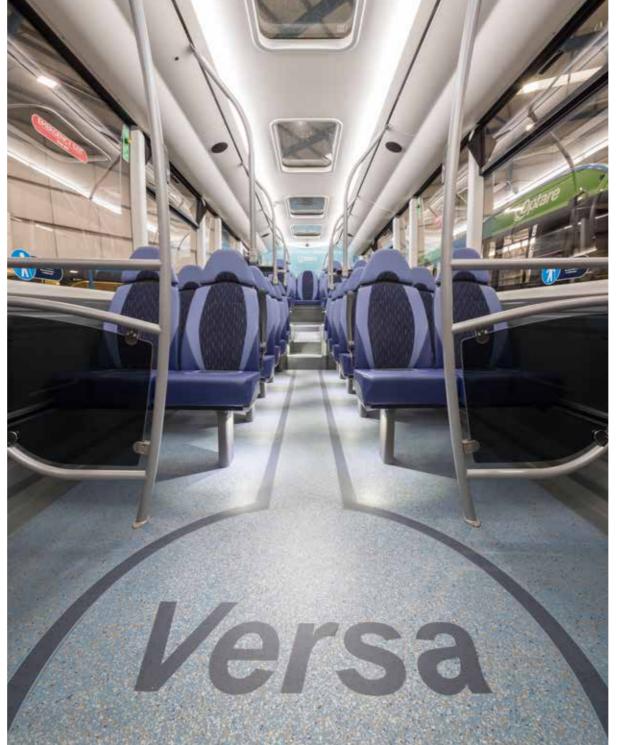
Our newly reformulated logos offer greater water resistance than ever before, passing EN 13553: 2017 water tightness tests. With a fully sealed topcoat and uninterrupted undercoat, our logos create a strong barrier between any water on the surface of the floor and the subfloor of the vehicle.

# Easy installation

With vehicle manufacturers (OEMs) in mind, our laminated logos are more flexible than ever before, making coving the easiest it has ever been. Stiff, difficult to manage flooring tiles are now a thing of the past with our easily coveable flexible logos.

# A range of options

Laminated logos are available in flooring tiles of varying dimensions across our entire transport portfolio, with no compromise on performance from product to product, and are fully fire tested for use in bus and rail applications. Choose a standard logo design or create your own .dxf file for cutting.



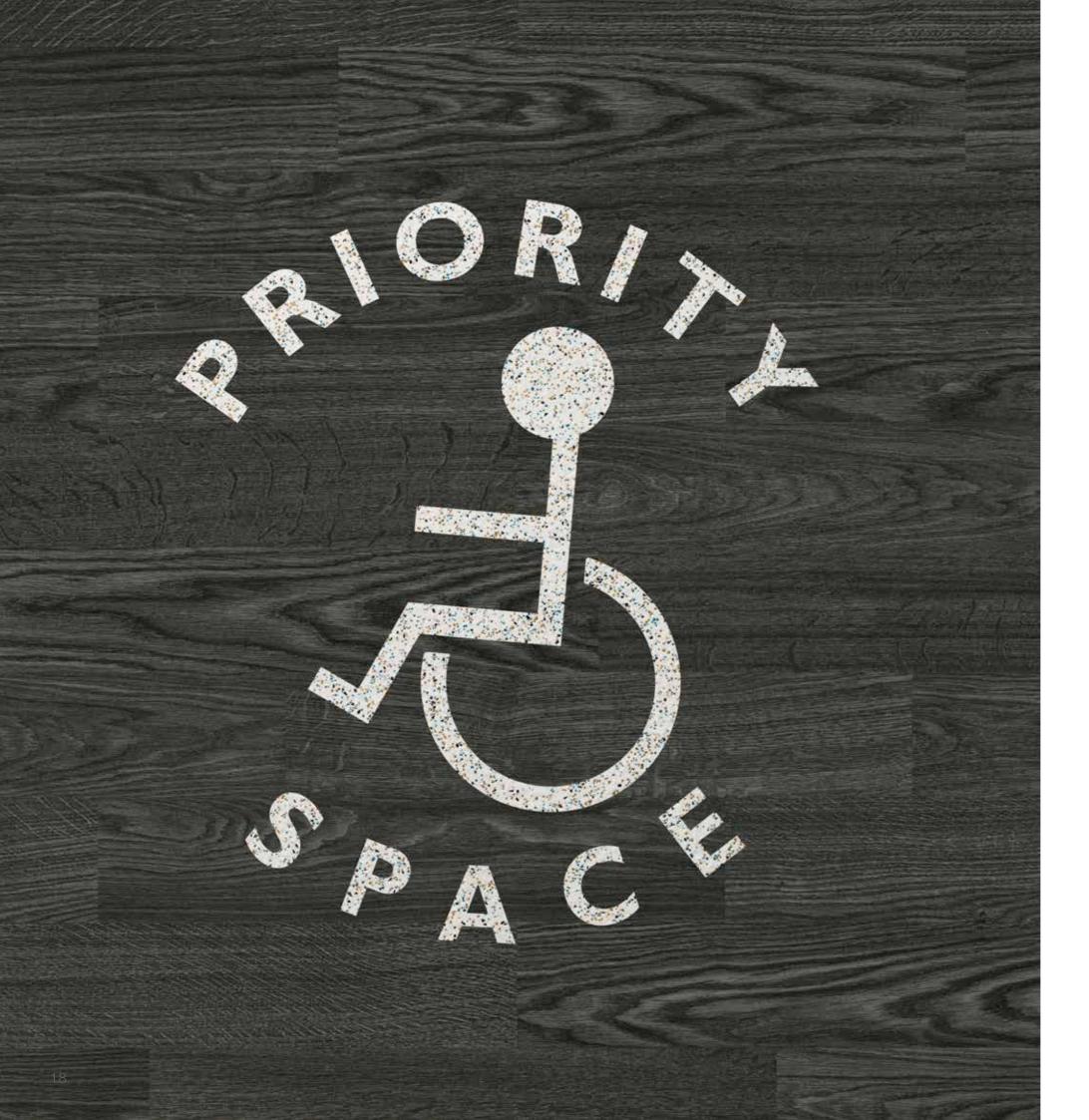












# A sign of success

# Water resistance

All of our laminated logos are compliant to EN 13553: 2017 water tightness testing. The EN 13553: 2017 test involves holding 200ml of water in contact with a 500 x 800mm sample for 24 hours. After this time period, our laminated logos sustained no water leakage at all. When in service, the durable construction of our floors combined with this solid water resistant performance means that your subfloors will remain protected from water ingress.

# The way forward

Ordering your water-resistant laminated logos for your bus or rail fleet couldn't be easier: simply contact your local Altro Transport consultant who will take you through the process and support you with any questions or queries you may have.

Altro's Laminated logo service is compatible with our entire range of transport floors:

Altro	Altro	Altro	Altro	Altro
Transflor	Transflor	Transflor	Transflor	Transflor
	TM T	714		714
Chroma <sup>™</sup> EV	Figura <sup>™</sup> EV	Meta™	Wood™	Artis <sup>™</sup>

Altro Transflor	Altro Transflor
Tungsten™	Motus™
Compatible	Compatible

Choose your laminated logos as part of a faster, more efficient install by combining with our other installation services:

Self-adhesive	Pre-cut floors	Reverse welding
Compatible*	Compatible	Coming soon

 $<sup>^{\</sup>star}$  Laminated logos made from Altro Transflor Motus are not compatible with our self-adhesive service.

## **Samples**

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

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