LEADING THE WAY IN
BALANCE WEIGHT MANUFACTURE...
Leaders in balance weight innovation and design, Made in UK to Original Equipment Standards

From its origins in 1989, the TRAX brand is recognised as one of the world’s leading balance weight manufacturers. Supplying both Original Equipment and aftermarkets, the company has continued to develop class-leading balance weight designs and manufacturing in the UK.

The company invented the CAM-BACK™ weight, widely regarded as the best solution available for universal fitment to steel wheels. Now, continuing to pioneer the use of lead-free materials, TRAX has invented the TRAX-LOK® process, incorporating the CAM-BACK™ solution to enable the manufacture of steel clip-on weights. Exporting to over 25 countries and with a subsidiary in the USA, TRAX is an international business.

SUPPLIERS TO ORIGINAL EQUIPMENT

The company has a wide range of problem solving and consultancy skills in product design and manufacture. TRAX wins and retains Original Equipment (OE) business on the strength of its product design and quality. Lead-free balance weights were designed, manufactured and supplied to Bridgestone for Formula 1 when they had the tyre contract for all F1 team supply.

TRAX BRAND - OE DESIGN AND QUALITY BUILT IN

The TRAX brand means you get OE levels of design expertise and quality. TRAX is widely recognised to represent customer service, superior product design, and consistent quality. This is even more relevant in today’s markets with low quality, low cost weights readily available. Designed to be universal in application, TRAX weights are accepted as a brand leader in many markets.
**ZINC CLIP-ON WEIGHTS FOR STEEL WHEELS**

**200X Universal CAM-BACK™ (uncoated)**

Our most popular weight. The CAM-BACK™ design, invented by TRAX, ensures the weight fits the widest range of steel wheels and ensures maximum retention. See ‘The benefits’ article to the left for more information. Uncoated.

Size range: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60g
Box quantities: 5/30g 100pcs/box; 35/60g 50pcs/box

**200C Universal CAM-BACK™ weight (plastic coated)**

200C with added plastic coating to OE standards. Approved by RENAULT and VOLVO.

Size range: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60g
Box quantities: 5/30g 100pcs/box; 35/60g 50pcs/box

**207C Special weight for RENAULT steel wheels (plastic coated)**

Developed for RENAULT the series 207C to fit steel rims 5 to 25g with improved fit and retention. The 5g is made of steel and Clip-only. The CAM-BACK™ design for maximum safety & retention. Plastic coated to OE standards.

Size range: 5, 10, 15, 20, 25g
Box quantities: 25 weights per box

**222C Special weight for thin section steel wheels (plastic coated)**

Developed with FORD, the series 222C gives high levels of retention on thin section steel wheels. The weight is designed to fit rim horns typically down to 1.5mm thickness. The CAM-BACK™ design is incorporated for maximum safety & retention. Plastic coated to OE standards.

Size range: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90g
Box quantities: 25 weights per box

**840C Special weight for heavy duty steel wheels (plastic coated)**

This weight is designed to fit heavy duty steel wheels as found on light trucks up to 3.5 tonnes (eg FORD TRANSIT, MB SPRINTER, RENAULT TRAFIC, VW TRANSPORTER) Plastic coated to OE standards.

Size range: 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90g
Box quantities: 25 weights per box

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**CAM-BACK™ weights**

**The benefits**

1. **SAFETY** – The top cam increases the force required to remove the weight which ensures it will not fall away from the rim.

2. **RETENTION** – The bottom cam forces the weight body away from the rim thereby opening the spring clip and significantly increasing retention. This increased retention ensures no movement of the weight on thin section rims which can cause imbalance.

3. **SLIMLINE** – The slimline shape allows good wheel trim clearance.

Heavy braking can make weights slide around the rim causing imbalance and wheel vibration. CAM-BACK™ weights eliminate this problem by giving the highest retention and a universal fitment across heavy duty and thin section rims.

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Coated or uncoated weights?

Uncoated zinc weights have been widely fitted on steel wheels across Europe (including Scandinavia) since 2005. Over 60% of weights sold for steel wheels have been uncoated.

Please see page 18 for more details.
ZINC CLIP-ON WEIGHTS FOR ALLOY WHEELS

326C Universal weight for alloy wheels (plastic coated)
Designed to fit most European cars with rim horns 4.5/6.5mm thick. Approved by VOLVO and RENAULT. For thicker rims (as found on some Japanese cars) the series 340C is recommended. Plastic coated to OE standards.
Size range: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60g
Box quantities: 5/30g 100 pcs/box; 35/60g 50 pcs/box
Also available in 25 pcs/box

326X Universal weight for alloy wheels (uncoated)
Designed to fit most European cars with rim horns 4.5/6.5mm thick.
Size range: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60g
Box quantities: 5/30g 100 pcs/box; 35/60g 50 pcs/box

340C Japanese and thick section alloy wheels (plastic coated)
Designed to fit thicker section alloy rim horns 6.5/7.5mm, as found on many Japanese cars, NISSAN, HONDA and TOYOTA. Plastic coated to OE standards.
Size range: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50g
Box quantities: 25 weights per box

324C High retention CAM-BACK™ weight for alloy wheels (plastic coated)
Developed with FORD for high levels of retention on alloy wheels. The CAM-BACK™ design opens the clip for improved retention. Plastic coated to OE standards.
Size range: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60g
Box quantities: 25 weights per box

328C Weight for alloy wheels for RENAULT 30-60g (plastic coated)
Developed with RENAULT to fit alloy rims 30g and over with improved fit and retention. For 25g and below use 326C.
Size range: 30, 35, 40, 45, 50, 55, 60g
Box quantities: 25 weights per box

Alloy wheel fitment guide
Alloy wheel rim horns will vary significantly in shape, height and depth. Each car manufacturer can have a different alloy rim shape depending on the rim manufacturer. Wide tolerances are allowed within ETRTO specifications.
For guidance only.

Rim Section

326C

340C

Typical dimension of (a)

326C Universal Weight 4.5/6.5mm
340C Japanese/heavy section 6.5/7.5mm

Outside these ranges adhesive weights are recommended.

Unique TRAX quality system - product traceability
Underneath each box is a yellow sticker which identifies traceability
• Date of manufacture
• Who packed the weights
• Weight series number
• Weight size
TRAX STEEL ADHESIVE WEIGHTS

TRAX PROFESSIONAL

- Tape approved by Original Equipment
- Quality German made Lohmann premium tape
- High bonding strength – better for low surface energy
- Oversized liner for easy removal
- Sub-zero fitment (-10°C)
- High quality packaging with “Professional” branding
- Boxes of 50 in cartons of 200
- Available in black or grey plastic coating

TRAX

- Oversized blue liner for easy removal
- Good corrosion resistance
- Fitment recommended minimum 16°C
- TRAX branding – superior design appearance
- Quality packaging “TRAX” brand
- Boxes of 50 in cartons of 200
- Available in electroplate, black or grey plastic coating

IMPORTANT INFORMATION ABOUT FITTING ADHESIVE WEIGHTS

- General fitment guidelines - page 19
- Fitting adhesive weights to new or refurbished rims - page 23
- Why do adhesive weights fall off? - page 20
TRAX pioneered the use of steel for adhesive weights and is a major supplier of a wide range of steel adhesive weight solutions for both the aftermarket and Original Equipment. The TRAX “PROFESSIONAL” range has been introduced due to demand for higher levels of bonding for general tyre shop & Original Equipment use.

- Steel is a lower cost solution than zinc or composite materials
- Steel offers better long term price stability than zinc
- Steel is 20% more dense than zinc (and 40% more dense than composite materials)
- Steel is the most environmental material and the easiest to re-cycle
- Steel is used or approved as a balance weight material by many OE companies including, Ford, Volvo, Jaguar, Land Rover, Renault, Honda, Toyota, Nissan

TRAX adhesive strips have superior corrosion resistance. Low quality weights can be rusty when opened in the original boxes. Top picture shows a quality TRAX adhesive weight after salt spray corrosion testing. Bottom picture shows a low quality alternative.

TRAX Low quality alternative

Trax has unique adhesive weight packaging for the easy handling of 12 Kg cartons.

With boxes of 50 or a carton of 200 you have pack size flexibility & stronger packaging for these heavy weights
Ideal for general tyre shop use offering a high level of bonding for all alloy wheels and “all weather” fitment. The TRAX “PROFESSIONAL” range has been introduced due to demand for higher levels of adhesion ensuring that weights do not fall off.

- Tape approved for Original Equipment use
- High bond - sticks better to alloy rim surfaces
- Soft foam adhesive backing – sticks better to the inside of alloy rim surfaces
- High bonding strength at elevated temperatures
- Can be fitted at low temperatures down to -10°C
- High quality tape made in Germany by Lohmann
- Plastic coated for superior appearance and corrosion protection

The soft foam Lohmann tape sticks better on alloy rim surfaces increasing the bond strength.

With hard foam (eg blue liner), adhesive tapes moisture can ingress underneath the adhesive reducing the bond strength.

Ideal for cold weather fitment. normal blue liner tapes have much reduced stickiness at low temperatures and are recommended to be fitted at a minimum temperature of 16°C.

The PROFESSIONAL range can be fitted on cold wheels down to -10°C. Ideal for winter use.

AVAILABLE IN BLACK OR GREY COLOURS
**TRAX PROFESSIONAL - STRIPS**

**614C Universal PROFESSIONAL 60g**
12x5g (plastic coated) GREY

A premium slimline steel 60g strip with grey plastic coating. Oversized liner for easy removal. 4.0mm high.

*Also available in a 5Kg roll 616C SP*

*Box quantities: 50 strips. 4 boxes per carton.*

**614B Universal PROFESSIONAL 60g**
12x5g (plastic coated) BLACK

The same as 614C except BLACK

*Box quantities: 50 strips. 4 boxes per carton.*

**615C Universal PROFESSIONAL 60g**
4x5g & 4x10g (plastic coated) GREY

A premium slimline steel 60g strip with grey plastic coating. Oversized liner for easy removal. 4.0mm high.

*Box quantities: 50 strips. 4 boxes per carton.*

**615B Universal PROFESSIONAL 60g**
4x5g & 4x10g (plastic coated) BLACK

The same as 615C except BLACK

*Box quantities: 50 strips. 4 boxes per carton.*

**TRAX PROFESSIONAL - ROLLS**

**616C SP Universal PROFESSIONAL 5Kg**
(plastic coated) GREY

The same as 614C except in 5Kg rolls

*Box quantities: 1 roll per box.*
605E Universal 60g 12x5g
A slimline steel 60g strip with a high quality zinc coating. Oversized liner for easy removal. 3.8mm high. Also available in a 5Kg roll 605E SP
Box quantities: 50 strips. 4 boxes per carton.

605C Universal 60g 12x5g
(plastic coated) GREY
The same as 605E but with a quality grey plastic coating. Also available in a 5Kg roll 605C SP
Box quantities: 50 strips. 4 boxes per carton.

605B Universal 60g 12x5g
(plastic coated) BLACK
The same as 605E but with a quality black plastic coating.
Box quantities: 50 strips. 4 boxes per carton.

610E Universal 60g 4x5g & 4x10g
Our most popular weight. A 60g universal steel strip with a high quality zinc coating. Oversized liner for easy removal. 3.8mm high.
Box quantities: 50 strips. 4 boxes per carton.

610B Universal 60g 4x5g & 4x10g
(plastic coated) BLACK
The same as the 610E but with a high quality black plastic coating
Box quantities: 50 strips. 4 boxes per carton.

620C Extra slimline 40g 2.8mm high 8x5g
(plastic coated) GREY
Recommended for use where brake calliper clearance is a problem.
Box quantities: 50 strips. 4 boxes per carton.
400X Universal Lead 60g
Made from high quality lead – easy to bend and cut. 3.8mm high x 20mm wide. Boxed 100 with 4 boxes per carton (24Kg).

Not to be used in markets where lead is banned as a material for balance weight use.

Box quantities: 100 strips. 4 boxes per carton

805C 4x4 Heavy duty 100g 4x25g – (plastic coated) GREY
Made from steel with a quality grey plastic coating. 20mm wide x 7.8mm high.

Size range: 50 strips. 4 boxes per carton (20Kg)

805C 4x4 Heavy duty 200g 4x50g – (plastic coated) GREY
Made from steel with a quality grey plastic coating. 25mm wide x 9.5mm high.

Box quantities: 30 strips. 4 boxes per carton (24Kg)

TRAX CAR - ROLLS

605E SP Universal 5Kg
The same as the 605E 60g strip but in a 5Kg roll - 1000x5g

Size range: Box qty: 1 roll per box

605C SP Universal 5Kg (plastic coated) GREY
The same as the 605E SP roll but with a quality grey plastic coating

Box quantities: 1 roll per box

Adhesive weights falling off? – see page 20

ROLL HOLDER
Designed to hold 5Kg rolls. Quality construction, requires bolting to the floor.
BUDGET CAR STRIPS & ROLLS

A budget range of adhesive strips. Lower quality than the TRAX branded weights with plain white boxes.

No TRAX branding / No oversized liner / Lower corrosion resistance / Lower weight accuracy / White plain boxes & no cartons / Longer weight / Budget appearance

BUDGET LINE RANGE CAR STRIPS

601E 5g & 10g
A budget line weight. Lower corrosion performance, less accuracy and no oversized liner for easy removal. Plain white box.
Box quantities: 100 strips per box

601C 5g & 10g - plastic coated grey
As 601E but with grey plastic coating.
Box quantities: 100 strips per box.

602E 5g x12
As 601E but 5g only strips.
Box quantities: 100 strips per box.

602C 5g x12 - plastic coated grey
As 602E but with grey plastic coating.
Box quantities: 100 strips per box

BUDGET LINE RANGE CAR ROLLS

602E SP
The same as the 602E 60g strip but in a 5kg roll - 1000x5g,
Box quantities: 1 roll per box

602C SP
The same as the 602C 60g strip but in a 5kg roll - 1000x5g,
Box quantities: 1 roll per box
Trax has a history of supplying balance weights to motorsport. As part of their global environmental commitment Bridgestone fitted Trax lead-free weights made from tin alloy during their period working in F1. The weights were soft and easily deformed and, once used, returned for re-cycling.

Red Bull has used slimline weights made from lead to support special balancing requirements.

Lead and lead-free (steel) weights are available.

615C Steel strip – professional series
With high bonding German made Lohmann tape – suitable for elevated temperatures. Made from steel. Available in grey or black plastic coating. Height 4mm Width 20mm.

Box quantities: 50 strips. 4 boxes per carton.

790X Lead strip streamline
2.8mm high and made from soft lead, this weight can be easily cut to size & formed to the rim. The soft material enables balancing weights to be fitted in difficult positions (see photo). Height 2.8mm. Width 26mm.

Box quantities: 50 strips.
TRUCK WEIGHTS

810X Tubeless truck. LEAD
Fits tubeless truck wheels - a popular weight in use for many years. Sizes 50g to 200g are slimline in shape to ensure clearance with steering parts which can be a problem on the inside of some truck wheels.
Size Range: 50, 75, 100, 150, 200, 250, 300, 350, 400g
Box Quantities: 10 weights per box

840C Heavy duty steel wheels – vehicles up to 3.5 tonnes. ZINC
This weight is designed to fit heavy duty steel rims as found on light trucks up to 3.5 tonnes (eg FORD TRANSIT, MB SPRINTER, RENAULT TRAFIC, VW TRANSPORTER). Plastic coated to OE standards.
Size Range:
10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90g
Box Quantities: 25 weights per box

805C Truck 100g 4x25g (plastic coated) GREY
Made from steel with a quality grey plastic coating.
20mm wide x 7.8mm high.
Box Quantities: 50 strips. 4 boxes per carton 20kg.

805C Truck 200g 4x50g (plastic coated) GREY
Made from steel with a quality grey plastic coating.
25mm wide x 9.5mm high.
Box Quantities: 30 strips. 4 boxes per carton 24kg.

MOTORCYCLE ADHESIVE WEIGHTS

630E & 630B (black) Universal steel strip 60g
15mm wide as a universal fit for motorcycles
Box quantities: 50 strips per box – 4 boxes per carton

950X Lead adhesive strip 50g
An accurate 2.5g and 5g lead strip weight.
11mm wide.
Box quantities: 50 strips. No carton.
Please enquire regarding assortment boxes – these are usually made to order.

<table>
<thead>
<tr>
<th>Trax branded box</th>
<th>Description</th>
<th>Size range</th>
<th>box qty</th>
</tr>
</thead>
<tbody>
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<td>200X-999-TX00</td>
<td>200X uncoated zinc for steel wheels</td>
<td>5-40g</td>
<td>100</td>
</tr>
<tr>
<td>200C-999-TX00</td>
<td>200C coated zinc for steel wheels</td>
<td>5-40g</td>
<td>100</td>
</tr>
<tr>
<td>326X-999-TX00</td>
<td>326X uncoated zinc for alloy wheels</td>
<td>5-40g</td>
<td>100</td>
</tr>
<tr>
<td>326C-999-TX00</td>
<td>326C coated zinc for alloy wheels</td>
<td>5-40g</td>
<td>100</td>
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<td>340C-999-TX00</td>
<td>340C coated zinc for Japanese alloy wheels</td>
<td>5-40g</td>
<td>100</td>
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<table>
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<th>Raaco plastic box</th>
<th>Description</th>
<th>Size range</th>
<th>box qty</th>
</tr>
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<td>5-40g</td>
<td>270</td>
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<tr>
<td>200C-999-RA00</td>
<td>200C coated zinc for steel wheels</td>
<td>5-40g</td>
<td>270</td>
</tr>
<tr>
<td>326X-999-RA00</td>
<td>326X uncoated zinc for alloy wheels</td>
<td>5-40g</td>
<td>270</td>
</tr>
<tr>
<td>326C-999-RA00</td>
<td>326C coated zinc for alloy wheels</td>
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<td>670C-999-RA00</td>
<td>670C coated OE steel adhesive for alloy wheels</td>
<td>5-50g</td>
<td>270</td>
</tr>
</tbody>
</table>

Quality RAACO plastic box
Trax assortment boxes 5-40g 100 pieces
PACKAGING

Please see the TRAX website www.traxjh.com to view the TRAX balance weight packing details.

Private labels available
TRAX has developed an advanced steel weight clip-on design that incorporates the CAM-BACK™ design features as found in the popular TRAX series 200 series zinc universal weight for steel wheels.

There is global interest in using steel as a material for balance weights as some Original Equipment companies prefer steel over zinc for ecological and recycling reasons.

Japanese OE use only steel (or iron) as a material for balance weights and USA OE also uses steel.

Incorporates the TRAX CAM-BACK™ solution for maximum safety and retention

TRAX-LOK® is an advanced method of attaching a clip to a weight body. Developed by TRAX, this solution enables a high speed automated assembly process ensuring consistent weight body and clip attachment.

Features

CAM-BACK™

Top cam - SAFETY. Prevents the weight from falling away from the rim

Bottom cam – RETENTION. Forces the weight body away from the rim, opening the clip gap & increasing retention

EASY TO FIT – the rounded bottom edge allows the weight to slide easily on fitting

ACCURACY - the clip gap is more accurate than a die-cast weight as it is a one-piece clip construction

Community Registered Design No: 001260277-0001
European Patent granted: EP2271856B1
European Patent applied for: 1164281.5
**Uncoated zinc weights**

**Zinc balance weights and ‘white rust’ corrosion**

**ARTIFICIAL TESTS DO NOT REPRESENT WHAT HAPPENS IN REAL CONDITIONS ON A WHEEL**

Laboratory tests for the corrosion testing of zinc balance weights rely on spraying a salt water solution in a chamber to create a “fog” (mist) around the weight for several hundred hours (e.g. ASTM B117, ISO 9227, DIN 50021 SS). Typically 240 hours in a laboratory test is claimed to represent 5 years life on a car.

Balance weights put into a static salty wet environment for several hundred hours can display a heavy flocculent white deposit (zinc hydroxide) and pictures of such weights have been shown around the balance weight market as below:

**LABORATORY ENVIRONMENT**

Example of a picture of weights shown in the market. This shows uncoated zinc weights placed into an artificial laboratory salt spray environment.

**REAL ENVIRONMENT**

Uncoated zinc weight after having been fitted to a steel wheel running approximately 16,000Km (10,000 miles) over 18 months (UK).

The surface has darkened with superficial corrosion which does not affect the weight performance or the steel wheel. This weight was fitted to a 3.5 tonne light truck with no wheel trims for maximum exposure to the road.

Laboratory tests are useful for a comparison between the performance of different surfaces and materials but do not represent what happens on wheel in real life conditions. In addition the aftermarket would not expect a weight to last for 5 years but the life of the tyre which would typically be around half of this time or less with the seasonal change over from summer to winter tyres. Car companies use weights with corrosion protection as the specification is for the part to last the life of the car or a minimum 5 years.

The primary reason given for the difference between laboratory test and real conditions is that when exposed to the weather the weights develop a protective skin called a “patina”. This patina comprises of zinc carbonate and offers an inert corrosion protection layer for the zinc metal. Detail of how the zinc carbonate “patina” will form are as below. This process is more commonly known as “weathering” with the effects of exposure to rain water, free air circulation, and constant wetting and drying. In addition there is often a heavy deposit of black brake dust and dirt building up on the weights which will give some additional protection. The continuous wetting and drying as seen in real life on a wheel gives fast “weathering” and the build up of the protective “patina” zinc carbonate layer.

**PATINA INFORMATION**

The formation of the zinc patina begins with exposure of the zinc weight to atmospheric oxygen. Initially a thin layer of zinc oxide develops on the surface as a result of the oxygen reacting with the zinc. This oxide layer reacts with water to form a white gelatinous zinc hydroxide (“white rust”).

During a drying phase the zinc hydroxide reacts with the carbon dioxide in the atmosphere forming a thin layer of zinc carbonate (patina). The rate of patina formation will depend on the environmental conditions but the constant wetting and drying as found on a wheel represents good conditions for this weathering process.

If the drying phase does not happen the zinc hydroxide (“white rust”) continues to form thereby showing heavy “white rust” formation as shown by the above left hand photograph.

TRAX offers the market a choice of coated or uncoated clip-on weights. There is a market for both. Distributors and tyre retailers are being advised it is essential to corrosion protect zinc balance weights and are not given a choice encouraging them to use more expensive coated weights.

Uncoated weights are now being widely fitted across aftermarket in Europe.

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Application guidelines for TRAX adhesive balance weights

1  PREPARE WHEEL

Good surface cleaning is essential. Prepare the wheel by removing any excess dirt or break dust using a clean cloth and an appropriate cleaning agent (eg isopropanol 90%). The wheel temperature ideally should be a minimum 16°C as lower rim temperatures will affect the ability of the adhesive to give a satisfactory initial bond.

2  CUT TO CORRECT WEIGHT

Once the wheel has been cleaned in the required imbalance zone, cut the strip or roll to the required weight. It is recommended to use scissors or a sharp knife to avoid rupturing or folding over the adhesive.

3  REMOVE PROTECTIVE LINER

Remove the protective liner from the underside of the adhesive. Care must be taken not to touch or contaminate the exposed adhesive to dirt or grease prior to application.

4  APPLY WEIGHT

Fit the adhesive weight to the identified imbalance zone and apply even pressure across the balance weight to ensure that maximum adhesion is gained. Balance weight adhesive tape is pressure sensitive and the weight should be pushed hard across the length for 2-3 seconds to ensure a satisfactory initial bond. It is recommended not to re-seat the weight to ensure optimum adhesion.

FITTING ADHESIVE WEIGHTS TO NEW OR REFURBISHED ALLOY RIMS – weights may not stick

A new or refurbished alloy rim may look clean but the surface paint or lacquer can have fresh wax or chemicals which do not allow a good adhesive bond. Please see page 20 for details of fitting adhesive weights to new or refurbished alloy rims.

TRAX “Professional” series adhesive weights with LOHMANN tape are recommended for new or refurbished alloy rims. NOTE: Fitting adhesive weights in cold weather can be a problem as standard adhesive tapes (eg “blue liner”) can start to lose their stickiness below 16°C leading to poor bonding strength and weights falling off. For fitment at temperatures below 16°C we recommend using the TRAX Professional adhesive weight range which has been tested on cold wheel fitment down to -10°C.
WHY DO ADHESIVE WEIGHTS FALL OFF?

A reliable solution - The PROFESSIONAL adhesive weight range with LOHMANN TAPE is recommended for a high quality all round tyre shop adhesive weight fitment. Particularly recommended for new or refurbished alloy rims. Approved for OE use.

Reasons why adhesive weights may not be sticking to alloy rims...

1. For “blue liner” tape (including the St Gobain/Norton as used by some OE - plus most Chinese weights) it is recommended to only fit this tape to rims at temperatures of 16°C or above. Below this temperature the adhesive is less sticky and may fall off. The “blue liner” tape is designed to be fitted in car plants at factory temperatures. This is one reason why TRAX developed the PROFESSIONAL adhesive tape solution as this can be fitted down to minus 10°C. Tyre shops in cold weather can have adhesive weight fitment problems due to the adhesive not being very “active” at colder temperatures. More retention problems are noticed in colder weather months. It is recommended to store your adhesive weights at room temperature.

2. All adhesive tapes used on balance weights are pressure sensitive. It is necessary to push on the length of the whole weight hard for 2/3 seconds. Failure to do so may mean the adhesive will not chemically bond to the rim surface and may fall off. The Trax PROFESSIONAL tape offers a better solution as the tape is softer allowing for a more consistent and reliable fitting.

3. Grooves or a rough surface on the rim surface are also a problem. There is less surface for the adhesive to stick to, plus moisture can ingress under the tape from the ends. The Trax PROFESSIONAL tape is softer which allows a better fit to the inside of alloy rim surfaces which can sometimes be seen with “as cast” finishes or “orange peel" or machined grooves etc.

Typical blue liner tapes (eg most Chinese and St Gobain/Norton tapes) have a hard surface which is OK to stick to a smooth surface (eg a badge or bodyside moulding to a painted car surface) however the inside of alloy rims are not always a smooth flat finish. The Trax PROFESSIONAL tape is soft which means it will adhere better to a rough or grooved surface and therefore will typically stick better to the inside of alloy rims. The downside of using a soft tape (it is the carrier for the adhesive) is that it will not peel cleanly from the rims. In our experience fitters are more worried about making sure the weights will not fall off than if they peel cleanly from the rims after use.

Tip - use a CARAMEL WHEEL in an electric drill to quickly remove tape residue on the alloy wheel

Tip - if the adhesive weight is not sticking to the rim then take another and stick to clean glass. If the weight sticks well then it is not the tape adhesive causing the problem but the rim surface, poor cleaning, a lack of pressure on application or cold temperature. Or a combination of all these working together.

4. We recommend cleaning rims using an ISOPROPONOL based cleaner. It evaporates quickly and is relatively non-toxic, compared to alternative solvents. It is used widely as a solvent and as a cleaning fluid, especially for dissolving oils. It will also remove condensation from the metal rims.
5. On new or refurbished rims the surface energy (see technical note below) of the paint or lacquer can be too low to readily allow the adhesive to bond. Some paints and lacquers do not allow the adhesive to chemically bond with the rim surface - or the rim may have been wiped with cloth containing a silicone polish. The rim looks clean but in fact has a slippery surface not allowing the tape to stick.

The ability to stick may also vary around the inside of the alloy wheel if it has been sprayed with a lacquer or paint with a low surface energy (ie a surface which is not easy to stick to). The surface energy may vary as the paint or lacquer density changes depending on the spray consistency and how well it is sprayed behind the wheel spokes. This also helps explain why there can be differences in the bonding ability of adhesive tapes on different wheels.

This means you may get different sticking results depending where you fit the adhesive weight around the rim.

6. Sometimes on a new or refurbished rim the weight will apparently stick well but over a matter of days or a week or so will fall off as the paint or lacquer surface is still curing which can “lift” the weight. It is like painting in your house - although the paint is “dry” if you get close you can still smell the paint some days later as it can take time for the paint surface to fully harden and cure.

Technical Note - Surface energy is measured in dynes - the higher the dynes the better the stick will be. We recommend a minimum of 36 dynes as a surface energy level for alloy rim surfaces - although this is also dependent on ensuring the weight is properly fitted and the rim clean. The ready bonding ability will also depend on temperature. We are aware of alloy rim surfaces down to 28 dynes - for example a rubber tyre will be around 30 dynes and you would not expect to stick adhesive weights to a tyre!

There are surface energy pens which will give an indication of a surface energy. They can only give an indication but are the only easy way of measuring surface energy - the alternative is to use a laboratory. We can advise sources of these “pens” if required but you can find them on the inter

7. When fitting adhesive weights to new or refurbished wheels it is necessary to always clean the rims in the area where the adhesive weights are to be fitted using an ISOPROPONOL wet wipe. Not only does this help to clean the rim but it also removes condensation. Wet wipes are preferred - using a chemical spray will not be consistent and putting too much on to the rim is a problem as the weight may try to be fitted before the isoproponal has had time to evaporate.

Tip for OE tyre fitting - if using "blue liner" hard adhesive tape (eg St Gobain/Norton), it is recommended to store alloy rims in a heated warehouse for a minimum of 24 hours and to ensure the rims are at a minimum 16°C when balanced. Fitting rims straight from a delivery truck in cold weather should be avoided. This is not a requirement if using the Trax PROFESSIONAL range as the adhesive is still active at sub-zero temperatures down to -10°C.
Trax Professional Range - available in grey or black

<table>
<thead>
<tr>
<th>60g strips</th>
<th>Coating colour</th>
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<tbody>
<tr>
<td>615C-060-TX50 5/10g</td>
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<tr>
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<tr>
<td>616C-500-SP01 1000x 5kg roll</td>
<td>GREY</td>
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</tbody>
</table>

Lohmann tape is made in Germany and was developed with TRAX for high specification adhesive balance weight use.

With plastic coating for better corrosion resistance.
Fitting adhesive weights to new or refurbished alloy wheels

Essential guidance

New or refurbished alloy rims may have coatings and lacquers applied to the alloy surface. Also when the rim paint is being dried, waxes can come to the surface creating a low surface energy (non-stick) and not allowing the adhesive weight to properly bond to the rim.

For this reason it is essential to clean the rims where the weight is to be applied to ensure that there are no traces of chemicals on the surface (eg wax or silicon).

Failure to clean the rim can lead to adhesive weights falling off within days of fitment, causing balancing failure.

Wet wipes are recommended for rim cleaning containing an appropriate cleaning agent (eg isopropanol). On weight application, the wheel rim should be dry and be at a minimum temperature of 16°C (60°F). After removal of the backing liner, the weight should be fitted immediately and a minimum 60N pressure applied for approximately 3 seconds as tape pressure is required to enable good bonding. Typically this can be achieved by hand pressure but may not be reliable. The adhesive should not be touched before fitment to the rim.

Even with good surface cleaning, problems have been found whereby over time (a few days or up to 3 weeks) good initial adhesion can deteriorate to an extent where the weight can fall off. This can be caused by the leaching of low surface energy substances (eg wax) coming through the freshly painted rims over time. Should such an event occur, it is necessary to investigate the paint or lacquer used to ensure that at all times the surface energy where the adhesive weight is fitted is above a recommended 36 dynes. Adhesives will only work if the surface energy (measure in dynes) is sufficiently high to ensure a good chemical bond.

Initial bond is typically achieved approximately 15 minutes after fitment; maximum bond strength may not be achieved until 24/72 hours after fitment. It is recommended to store adhesive weights in a cool dry location away from direct sunlight and they should be used within 1 year of purchase.

Depending on the wheel radius, there may be a small visible gap between the adhesive and the rim, either on the centre or to the outer edges of the weight. This is due to radii difference as the weight fitment meets a compromise on various rim sizes. The balance weights have been tested to withstand a minimum shear force to Original Equipment standards and, whilst desirable, it is not essential to have the adhesive in contact across all of the surface to achieve specification.