Fibreglass Trench Covers

- Light Weight & High Strength
- Easy Installation
- Anti-Slip Surface
- Corrosion & Fire Resistant
- Exceptional High Load Capacity
- Safety Compliant

For new or replacement Trench covers, work platforms & structural flooring

Dura Slab

...designed for the future
Dura Slab Structural Trench Covers

Hi Tech Construction
Dura Slab is a precision engineered fibreglass structural flooring system manufactured using a unique construction technique that provides an incredible strength to weight ratio. A one piece high strength fibreglass profile is pultruded in one mass to produce a consistent quality flooring structure that is stiff, incredibly strong, lightweight, non-corrosive with an anti-slip walking surface.

New or Refurbishment Projects
Dura Slab is ideal for new constructions but is also well suited for refurbishment applications to replace old, heavy & cumbersome traditional materials. The characteristics of Dura Slab make it more favourable than using steel, timber or concrete systems due to its lower weight, anti-slip surface, ease of installation and absence of maintenance.

Health and Safety Compliant
Dura Slab is alone in providing such a comprehensive list of Health and Safety benefits. Dura Slab has one of the highest degrees of slip resistance ever measured for a walking surface, especially in wet, oily and frosty conditions. It is a fraction of the weight of steel or concrete and can be supplied in 25kg or 50kg cover sizes. This allows a one or two man lift which complies with health and safety regulations. This means that routine inspections and repairs can be made easily by simply removing the appropriate covers. This obviates the need for expensive heavy lifting machinery in cases where access is limited.

British Standard Compliant
Dura Slab can be BS EN 124 approved. This European standard applies to gully covers and manhole covers for vehicular and pedestrian areas. In order to reach this approval a Dura Slab cover was subjected to a repeated load as per BS EN 124 standards. The test is continued to evaluate absolute failure level.

Applications:
- Trench Covers
- Industrial Flooring
- Work Platforms
- Tank Covers
- Service Duct Covers
- Bridge Decking
- Gully Covers
- Balcony Flooring
- Chemical Plant Flooring

Benefits:
- Light weight / High strength
- Easy installation
- Anti-Slip Surface
- Corrosion/Fire resistant
- Impact resistant
- Minimal maintenance
- High Load Capacity
- One or two man lift
- Safety Compliant

Dura Slab UD L Deflection Loads
Single Span Panels (kN) - L/200 (0.5%) Deflection (mm)

<table>
<thead>
<tr>
<th>Span (mm)</th>
<th>300</th>
<th>600</th>
<th>1000</th>
<th>1250</th>
<th>1500</th>
<th>1750</th>
<th>2000</th>
<th>2250</th>
<th>2500</th>
<th>2750</th>
<th>3000</th>
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</thead>
<tbody>
<tr>
<td>L/200 (0.5%) Deflection (mm)</td>
<td>1.50</td>
<td>3.00</td>
<td>5.00</td>
<td>6.30</td>
<td>7.50</td>
<td>8.80</td>
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<td>13.80</td>
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<tr>
<td>Type 40 Light</td>
<td>Allowable load to achieve L/200 (0.5%) (kN/m²)</td>
<td>141.00</td>
<td>70.30</td>
<td>17.10</td>
<td>8.90</td>
<td>5.20</td>
<td>3.30</td>
<td>2.20</td>
<td>1.60</td>
<td>1.10</td>
<td>0.90</td>
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<td>Type 45</td>
<td>Allowable load to achieve L/200 (0.5%) (kN/m²)</td>
<td>214.30</td>
<td>107.10</td>
<td>38.40</td>
<td>20.20</td>
<td>11.90</td>
<td>7.50</td>
<td>5.10</td>
<td>3.60</td>
<td>2.60</td>
<td>2.00</td>
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<tr>
<td>Type 50 Light</td>
<td>Allowable load to achieve L/200 (0.5%) (kN/m²)</td>
<td>266.70</td>
<td>133.30</td>
<td>34.10</td>
<td>17.80</td>
<td>10.40</td>
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<td>4.40</td>
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<td>2.30</td>
<td>1.70</td>
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<tr>
<td>Type 50</td>
<td>Allowable load to achieve L/200 (0.5%) (kN/m²)</td>
<td>413.10</td>
<td>206.60</td>
<td>61.20</td>
<td>32.10</td>
<td>18.80</td>
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<td>8.00</td>
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<td>4.10</td>
<td>3.10</td>
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<td>Type 75</td>
<td>Allowable load to achieve L/200 (0.5%) (kN/m²)</td>
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<td>TBC</td>
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<td>Type 100</td>
<td>Allowable load to achieve L/200 (0.5%) (kN/m²)</td>
<td>1021.50</td>
<td>510.70</td>
<td>306.40</td>
<td>245.20</td>
<td>159.60</td>
<td>103.30</td>
<td>70.50</td>
<td>50.10</td>
<td>36.90</td>
<td>27.90</td>
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</table>

Data based on extrapolation of Live Load test information
**DURA SLAB Fibreglass Trench Covers**

**Precision Engineered Fibreglass Trench Covers to BS EN124**

**Type 40 (light)**
Dura Slab 40mm thickness x 500mm wide. Length to suit span (Interlocking joining system)

**Type 45**
Dura Slab 45mm thickness x 700mm wide. Length to suit span (Half lap joining system)

**Type 50**
Dura Slab 48.5mm thickness x 475mm wide. Length to suit span (Half lap joining system)

**Type 50 (light)**
Dura Slab 50mm thickness x 500mm wide. Length to suit span (Interlocking joining system)

**Type 75**
Dura Slab 75mm thickness x 600mm wide. Length to suit span. (Half lap joining system)

**Type 100**
Dura Slab 98.5mm thickness x 600mm wide. Length to suit span. (Half lap joining system)

Illustration shows how the half lap trench covers join together allowing easy removal for maintenance access
Duct Covers for Royal Botanic Garden, Edinburgh

Comments

“When MEP were asked to replace all the pipe-work for the services, we took the opportunity to recommend an alternative duct cover to replace the original concrete material. The idea was to better fulfil key functional criteria: light weight for easy handling and easy access, high load bearing strength, anti-slip surface for all conditions and colour matched to surrounding flooring. Probably the biggest benefit and single biggest reason Dura Slab was specified, was its light weight construction. This allows a 2 person lift and does away with the need for bulky and expensive heavy lifting equipment. The previous concrete duct cover only provided access to the services via manholes which were 10 metres apart. This meant that maintenance teams had to work in a confined space with limited light to reach control valves and carry out burst pipe repairs.”

Key Benefits for this application

- Anti-Slip walking surface
- Light Weight
- Health & Safety compliant
- Covers easily removed for access

Replacement bridge pathway for Reading Council

Dura Slab Type 100 was chosen by contractor VolkerLaser as a lightweight replacement for degrading and distressed concrete on the pedestrian walkway of Reading Bridge. The project was the first major strengthening work on the structure in its 92-year history and was necessary to ensure that no weight restrictions are needed in the future and that the bridge can continue to carry over 24,000 vehicles and thousands of pedestrians per day.

Key Benefits for this application:

- Lightweight for easy installation
- Easy to manoeuvre
- Anti-Slip Surface
- Minimal maintenance

Balcony Flooring for Kier London

Dura Slab panels are ideal for installations above ground level such as this new build residential development. Each Dura Slab panel can be joined seamlessly without the need for traditional grouting.

The finished balcony proved extremely successful and as a consequence of this project, Kier London have gained further business with their client.

Key Benefits for this application

- Fire resistant
- No lifting equipment required
- Safe Anti-Slip surface
- Light Weight for easy installation
- Minimal maintenance
Trench Covers for National Grid

Comments
“The Dura Slab 5 ton trench cover was the only solution on the market that met all of our clients’ requirements. The biggest benefit of Dura Slab is that given the sensitive nature of the equipment on site and their light weight, they could be installed without the need for heavy lifting equipment. Once installed, the high load bearing capacity allows site staff to travel around the site using the trench covers without having to worry about specific crossing points”

“We also specified Dura Slab with built-in lifting eyes and lifting keys. This makes it very simple to install the panels and also to remove them for maintenance and servicing using the tools supplied. The anti-slip surface has already proven to be very effective. The installation period has coincided with very wet weather and I can report that there have been no incidents of site staff slipping or falling.”

Contract Manager, Trant Construction (on behalf of National Grid)

Key Benefits for this application
- 5 ton load capacity
- No lifting equipment required
- Anti-Slip walking surface
- Light Weight
- Covers easily removed for access
- Fast installation

Installation process made easy through lightweight covers and lifting keys

Service Duct Covers for Intervet UK Limited

Comments
“Some of the key advantages of using Dura Slab for our replacement service duct covers relate to better accessibility and its light weight construction. Dura Slab improves Health & Safety in several ways. Previous concrete covers required at least 2 men to lift them and as a result of their significant weight, there was a risk of injury. Now that Dura Slab has been installed, it means that one man can now lift a duct cover by himself and then work on the services without any need for additional man power. This saves money and time and also means that we don’t have any problems carrying out maintenance. Finally, we found that Dura Slab was cheaper than the quote we received for bespoke concrete covers with the special lifting eyes to suit a 2/3 man lift”

Civil Project Manager, Intervet UK Limited

Key Benefits for this application
- No lifting equipment required
- Lower purchase cost
- Anti-Slip walking surface
- Light Weight
- Covers easily removed for access
- Minimal maintenance

Dura Slab allows easy access, is lightweight and has built-in lifting eyes
DURA SLAB Trench Covers, Structural Floors and Walkway installations

High Strength, lightweight fibreglass structural flooring used for Helideck

Dura Slab Trench Covers are the ideal replacement solution

The installation process is made simple through lightweight covers and lifting keys
Dura Slab provides safe structural flooring over all types of chambers including chemical vessels, water tanks and other hazardous liquid containers.

Dura Slab has a gritted anti-slip surface which helps prevent slip trips and falls in the workplace.

Lightweight Trench and gully covers have an exceptional anti-slip walking surface.

Dura Slab structural flooring offers easy to install lightweight maintenance-free access walkways.

Dura Slab Trench Covers provide incredible anti-slip flooring and long term durability.
DURA SLAB Trench Covers, Structural Floors and Walkway installations

Dura Slab non-conductive high strength bridge deck walkway installed at a Network Rail station.

Dura Slab light weight Trench Covers allow easy maintenance access

Fibreglass Structural Flooring used for maintenance access walkway

Dura Slab Trench Covers can be cut to suit non straight runs
Dura Slab Trench Covers have one of the highest degrees of slip resistance ever measured for a walking surface.

Dura Slab Trench Covers have one of the highest degrees of slip resistance ever measured for a walking surface.

Lightweight, high strength anti-slip Dura Slab Trench Covers used to cover vital services on residential pavement.

Dura Slab fibreglass flooring installation at a stadium replacing traditional plywood panels, offering 10 times the lifespan.
DURA SLAB Trench Covers, Structural Floors and Walkway installations

Dura Slab non-conductive high-strength trench covers used at an electrical substation

Dura Slab structural walkway with anti-slip surface replaces heavy and damaged existing concrete pavement

Dura Slab fiberglass structural walkway panels replace existing heavy broken concrete slabs

New lightweight high strength Dura Slab trench covers allowing easy access for maintenance
Dura Slab fixing systems

Fixing types

Various mechanical fixings are available
- Nut and bolt
- Fischer Rawlbolts
- Coach screw (Anti-tamper available)

Securing Methods

- Recessed collar (illustrated)
- Counter sunk
- Dome head bolt and washer

Lifting Systems

- T-Bar lifting handles (illustrated)
- Lifting Eyes (can suit 1, 2 or 4 man lift)

Dura Slab manufacturing process

Glassfibre rovings and matting reinforcement
Chemical grade resin dip bath
Final pultruded resin glassfibre Dura Slab

Pultruded Dura Slab Profiles are manufactured by combining various resins with pure glassfibre reinforcement. They are formed and cured in a continuous process creating a product of extraordinary strength and resilience. The resultant profile offers a combination of benefits and mechanical properties exceeding those of metal. Weighing up to 80% less than steel and concrete, Dura Slab offers equivalent performance for considerably less weight. This results in major weight savings and lower installation and servicing removal costs due to more economical transportation, handling and on site positioning. The high strength to weight ratio has particular relevance for many applications in the structural flooring, trench, gully and duct cover industries.
Photographs illustrate existing concrete and steel trench covers. They show signs of severe damage and weakened strength which may result in trip hazards, serious injuries or vehicles breaking through.

Concrete and steel trench covers deteriorate over time and require replacement to meet Health and Safety regulations.

**Lower Costs**
Dura Slab can provide significant savings over the use of most other materials when taking into account ‘life cycle costs’. This is due to the fact that heavy installation equipment is eliminated, there is zero maintenance plus the fact that access can be provided for servicing simply by lifting the panels.

**Anti-Slip**
Dura Slab flooring features a gritted surface that provides outstanding anti-slip protection for personnel in wet and oily environments. The grit is embedded in the top surface of each panel prior to curing. This combination of integral construction, plus depth of the embedded grit, creates a long-lasting maximum anti-slip top surface.

**Maintenance Free**
The use of Dura Slab virtually eliminates maintenance. This can drastically reduce costs since painting is not required, and UV inhibitors protect against degradation from the sun which means the material does not need replacing.

**Mechanical Strength**
Breaking strength under a lateral force is exceptional. The uni-directional continuous fibreglass reinforcement offers numerous advantages, including rigidity, shock-resistance and no permanent deformation after overloading. These factors provide excellent mechanical strength and a generous factor of safety. Fibreglass is designed for maximum safety in intensive industrial use.

**Easy Installation**
Dura Slab panels weigh about one-quarter as much as steel covers. Two men can easily handle full panels, without the need for hoists, pulleys or dollies. If the panels need to be moved for cleaning, maintenance or utility access, there is less chance of back injuries. The lightweight design of the material therefore reduces installation costs.

**Low Installation Costs**
Fibreglass weighs considerably less than conventional materials, and is easier and less expensive to transport, install and remove. Only simple hand tools are required for installation and removal, eliminating the need for costly equipment and labour costs associated with heavy lifting, cutting and welding equipment.

**Queen’s Award For Enterprise 2017**
Dura Composites was established in 1996 when the company first began selling fibreglass grating for use as anti-slip walkways in the Marine and Industrial sectors. Over the past 20 years the product range has expanded to include Glass Reinforced Plastic Trench Covers, Profiles, Handrail, Stair Treads and the market-leading Dura Deck and Dura Cladding made from low-maintenance Composite Timber. The company’s mission is to supply pioneering composite product solutions that inspire new ideas and promote safety, durability and longevity - and this exceptional award marks the culmination of another extremely successful year.

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Due to our policy of continual improvement we reserve the right to change specifications at all times without prior notice.