

Fibreglass Trench Covers



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

5 TONNE SWL

For new or replacement covers, work platforms & structural flooring

Dura Slab

...designed for the future

Industrial Rail Marine Landscaping Architectural

dura[™]
composites



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, strong, light-weight, 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 flooring 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:

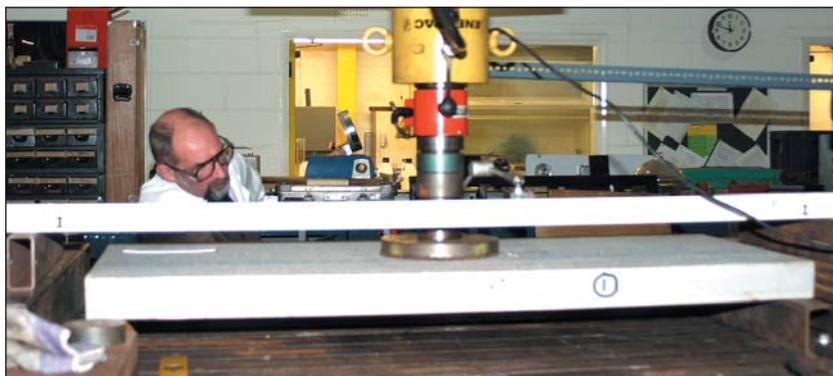
- Trench Covers
- Industrial Flooring
- Work Platforms
- Tank Covers
- Service Duct Covers
- Bridge Decking
- Gully Covers
- Balcony Flooring
- Chemical Plant Flooring

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



Damaged concrete trench covers in need of replacement to meet Health & Safety Regulations



Dura Slab undergoing BS EN 124 testing

Dura Slab UDL Deflection Loads

Single Span Panels (kN) - L/200 (0.5%) Deflection (mm)

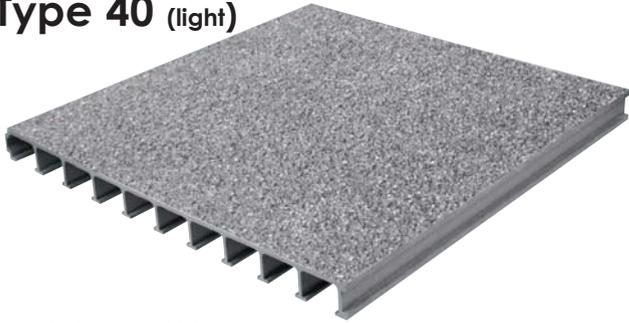
		Span (mm)										
		300	600	1000	1250	1500	1750	2000	2250	2500	2750	3000
L/200 (0.5%) Deflection (mm)		1.50	3.00	5.00	6.30	7.50	8.80	10.0	11.30	12.50	13.80	15
Type 40 Light	Allowable load to achieve L/200 (0.5%) (kN/m ²)	141.00	70.30	17.10	8.90	5.20	3.30	2.20	1.6.	1.10	0.90	0.7
Type 45	Allowable load to achieve L/200 (0.5%) (kN/m ²)	214.30	107.10	38.40	20.20	11.90	7.50	5.10	3.60	2.60	2.00	1.5
Type 50 Light	Allowable load to achieve L/200 (0.5%) (kN/m ²)	266.70	133.30	34.10	17.80	10.40	6.60	4.40	3.10	2.30	1.70	1.3
Type 50	Allowable load to achieve L/200 (0.5%) (kN/m ²)	413.10	206.60	61.20	32.10	18.80	11.90	8.00	5.70	4.10	3.10	2.4
Type 75	Allowable load to achieve L/200 (0.5%) (kN/m ²)	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC	TBC
Type 100	Allowable load to achieve L/200 (0.5%) (kN/m ²)	1021.50	510.70	306.40	245.20	159.60	103.30	70.50	50.10	36.90	27.90	21.6
Type 150	Allowable load to achieve L/200 (0.5%) (kN/m ²)	1.50	3.00	5.00	6.25	7.50	8.75	10.00	11.25	13.75	15.00	21.6
Type 200	Allowable load to achieve L/200 (0.5%) (kN/m ²)	1.50	3.00	5.00	6.25	7.50	8.75	10.00	11.25	12.50	13.75	15.00

Data based on extrapolation of Live Load test information

DURA SLAB Fibreglass Trench Covers

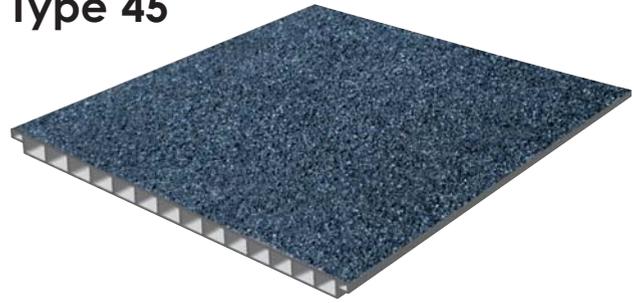
Precision Engineered Fibreglass Trench Covers to BS EN124

Type 40 (light)



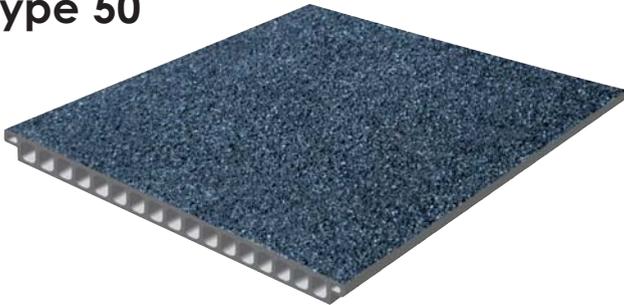
Dura Slab 40mm thickness x 500mm wide.
Length to suit span (Interlocking joining system)

Type 45



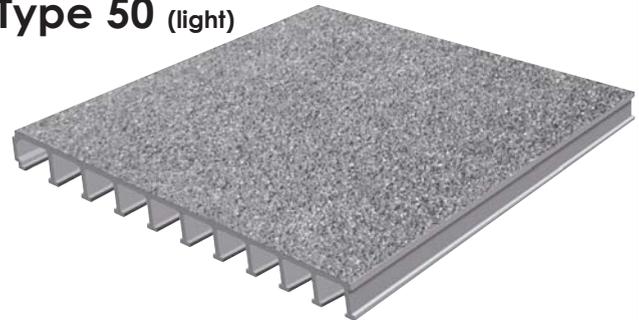
Dura Slab 45mm thickness x 700mm wide.
Length to suit span (Half lap joining system)

Type 50



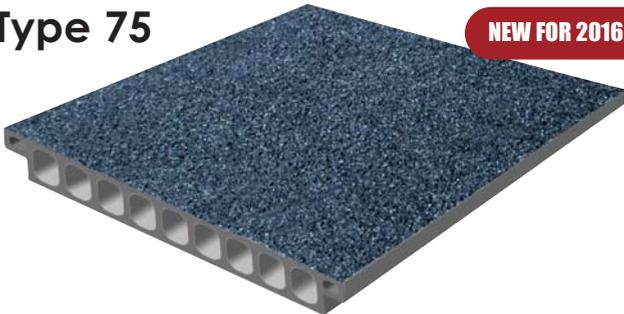
Dura Slab 48.5mm thickness x 475mm wide.
Length to suit span (Half lap joining system)

Type 50 (light)



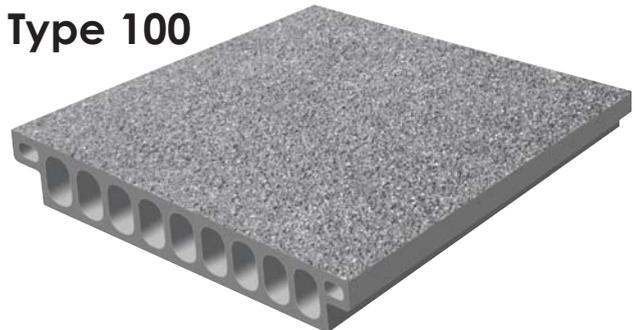
Dura Slab 50mm thickness x 500mm wide.
Length to suit span. (Interlocking joining system)

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)

Type 150



Dura Slab 150mm thickness x 500mm wide.
Length to suit span. (Half lap joining system)

Type 200



Dura Slab 200mm thickness x 500mm 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

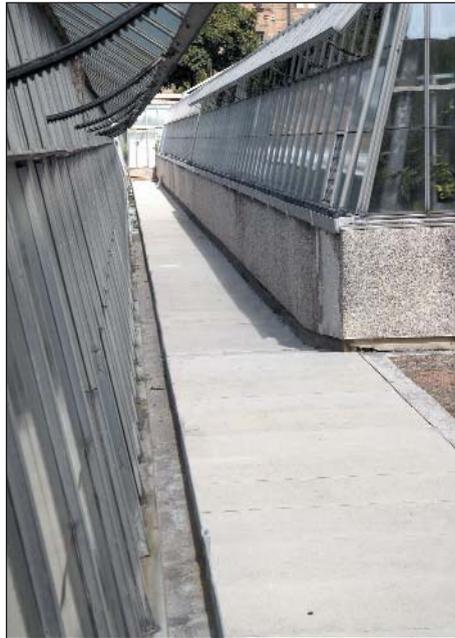
Duct Covers for Royal Botanic Garden, Edinburgh

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



Completed Dura Slab installation



Dura Slab allows easy maintenance 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
- Rapid install
- 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



Kier London, a division of Kier Regional Ltd.

Dura Slab was used on several floors of this residential development

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

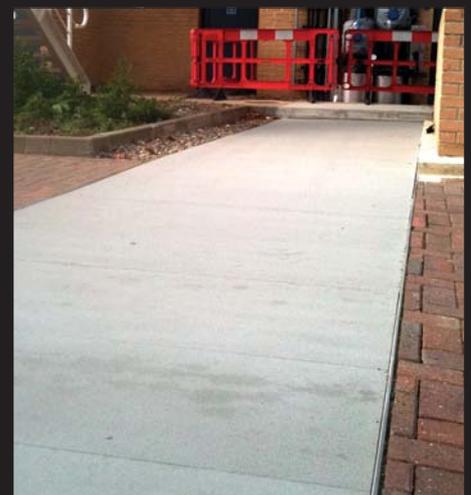
Key Benefits for this application

- 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 Installations





Dura Slab fixing systems

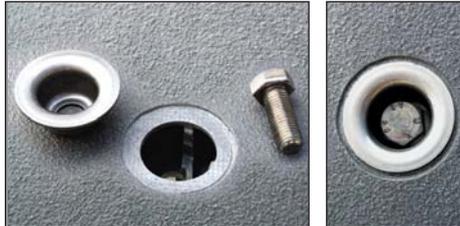
Fixing types



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.

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

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.



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.

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