



The 1st HIGH TENSILE G550
W-Deck Profile in Indonesia



SMARTDEK™
The Real Structural Deck



DESIGN
FLEXIBILITY



DURABILITY/
SECURITY



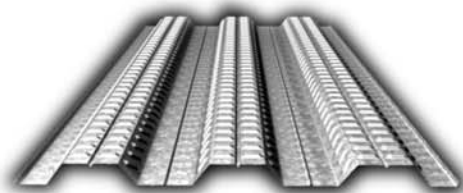
HI-TECH
PRODUCTION



An enhanced look of SMARTDEK™

About SMARTDEK™

SMARTDEK™ is a new innovative steel decking profiled that brings greater economy and design freedom to building with composite concrete slabs. It is a unique and proudly to say that our design engineers scoured around the globe to find the best "W" - profiles in the world. After several careful examinations, our engineers incorporated the best aspects of each profile into new SMARTDEK™. The profile has been specifically developed for Australian high tensile steels - which makes SMARTDEK™ one of the best performing 'W' profiles in the world. This profile is designed to meet your requirement availability for diverse building needs.



This resulted in a new innovative and optimized shape for SMARTDEK™, having flange stiffeners and deep embossments, which act as web stiffeners, to increase the load carrying capacity. Due to the large depth of the profile, an increase of the flexural rigidity reduces deflections.

SMARTDEK™ steel sheets are permanent formwork for a suspended composite concrete slab. In its assembled state, it can be used as a working platform and formwork to support wet concrete, construction materials and trades.

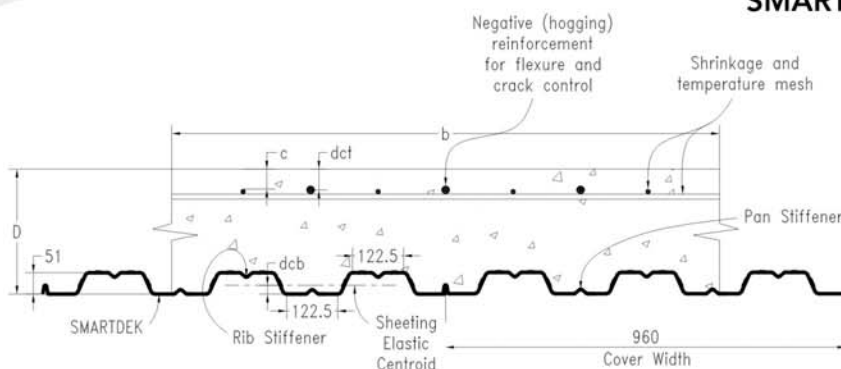


When the concrete hardens, SMARTDEK™ acts as the bottom reinforcement of the concrete slab. SMARTDEK™ is a complete structural steel decking system for concrete, masonry or steel frame construction.

SMARTDEK™ Profile and Dimension

The nominal dimensions of SMARTDEK™ profiled steel sheeting are shown in the figure below.

The effective cover width is 960mm. In the assembled state, the profile comprises two intermediate male and female ribs for every interlocking side-lap joint.



TYPICAL SMARTDEK™ COMPOSITE SLAB SECTION

Properties and Quality of SMARTDEK™

SMARTDEK™ Section Properties Table

	Unit	Symbol	Base Metal Thickness – BMT (mm)		
			0.70	1.0	1.20
Area	mm ² /m	A	889.69	1143.75	1523.96
Inertia Moment	mm ⁴ /m	I _x	409687.50	526562.50	701979.17
Section Modulus	mm ³ /m	Z _x	15156.25	19479.17	25958.33
Mass	Kg./m ²		7.35	9.34	12.33

SMARTDEK™ Material Specification

SMARTDEK™ profiled steel sheeting is roll-formed from hot dipped, zinc coated, chromate - passivated, and high strength grade steel strip

Thickness (BMT)	Coating Mass (Total of both sides)	Yield Strength	Australian Standard
0.70 mm	275g/m ²	550 Mpa	AS 1397 G500
1.00 mm			
1.20 mm			

Distinctive Advantages of SMARTDEK™

- ✍ Suitable to the most grids of diverse building modules to minimize
- ✍ Lesser propping required and unpropped span of up to 3.4 meters
- ✍ Concrete displacement up to 25% savings - lesser concrete is required
- ✍ Standard embossments (3mm depth) improve composite action and
- ✍ Windows base MegaFloor software for composite slab design
- ✍ Ease of mind with real test data, strong technical and R&D support

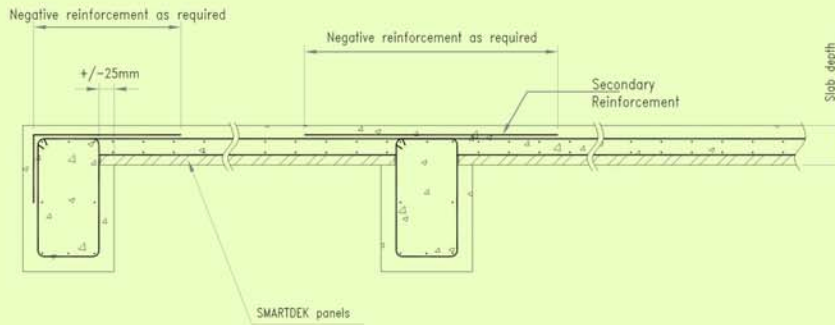
SMARTDEK Profile Features

- » 3 pans with 51mm rib height of W-Deck profile
- » Pan and Rib Stiffener
- » Top rib and close type web embossments
- » High tensile Steel

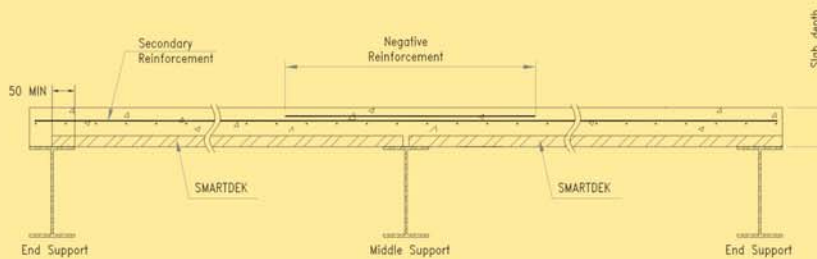


Installation and Properties SMARTDEK™

Installation on Concrete Frame Construction



Installation on Steel Frame Construction



SMARTDEK™ Span Table (FORMWORK STAGE)

Span Type	Single			Continuous End			Continuous Interior		
	0.7	1.0	1.2	0.7	1.0	1.2	0.7	1.0	1.2
BMT (mm)	0.7	1.0	1.2	0.7	1.0	1.2	0.7	1.0	1.2
100	2.121	2.521	2.733	2.336	2.965	3.266	2.415	3.064	3.376
110	2.070	2.445	2.651	2.290	2.906	3.201	2.367	3.003	3.274
120	2.021	2.377	2.578	2.246	2.850	3.140	2.322	2.936	3.184
130	1.976	2.316	2.512	2.205	2.798	3.082	2.279	2.861	3.103
140	1.934	2.261	2.452	2.166	2.748	3.027	2.238	2.793	3.029
150	1.891	2.211	2.398	2.129	2.701	2.975	2.200	2.731	2.962
160	1.852	2.166	2.348	2.093	2.656	2.926	2.164	2.675	2.901
170	1.815	2.123	2.303	2.060	2.613	2.879	2.129	2.622	2.844
180	1.782	2.084	2.260	2.028	2.573	2.834	2.096	2.574	2.791
190	1.751	2.048	2.221	1.997	2.534	2.792	2.064	2.529	2.743
200	1.722	2.014	2.184	1.968	2.497	2.751	2.034	2.487	2.697

* BMT (Base Metal Thickness)
Steel sheet thickness excluding the coating layer



Step 1
Open SMARTDEK™ sheet bundles



Step 2
Place temporary support if required



Step 3
Trim SMARTDEK sheets if required



Step 4
Place on steel or concrete beam



Step 5
Punch male and female lip



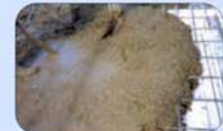
Step 6
Fix SMARTDEK™ to steel or concrete beam if required



Step 7
Fix steel edge form



Step 8
Place reinforcement



Step 9
Place concrete

SMARTDEK™ Installation



Why SMARTDEK™ Profile ??

1. Research & Development Support

BlueScope Lysaght places great emphasis on product research and testing. All of our LYSAGHT® structural products are subjected to rigorous tests such as slip block test, formwork tests including shear and bearing, full scale slab test, composite slab cyclic test, fire rating test, formwork - air pressure test, formwork - four point load test and concentrated load test. These tests are carried out in the labs of the Lysaght Technology Center in Chester Hill, Sydney, Australia, to ensure maximum performance and quality of our decking profiles.

2. Product Recommendation & Design to Suit your Specifications

Working from your project specifications, our engineers will follow-up on your requirements and work out a set of calculations and a project proposal. A user-friendly Excel-based software for the design of composite slabs with LYSAGHT SMARTDEK™ profile will be available to assist a competent engineer in deriving an optimal solution. This software should be used in conjunction with the SMARTDEK™ Design and Construction Guide.

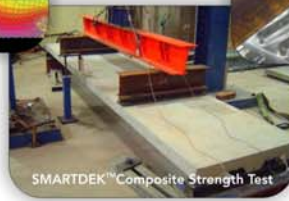
3. Quality Assurance - Material & Manufacturing Process

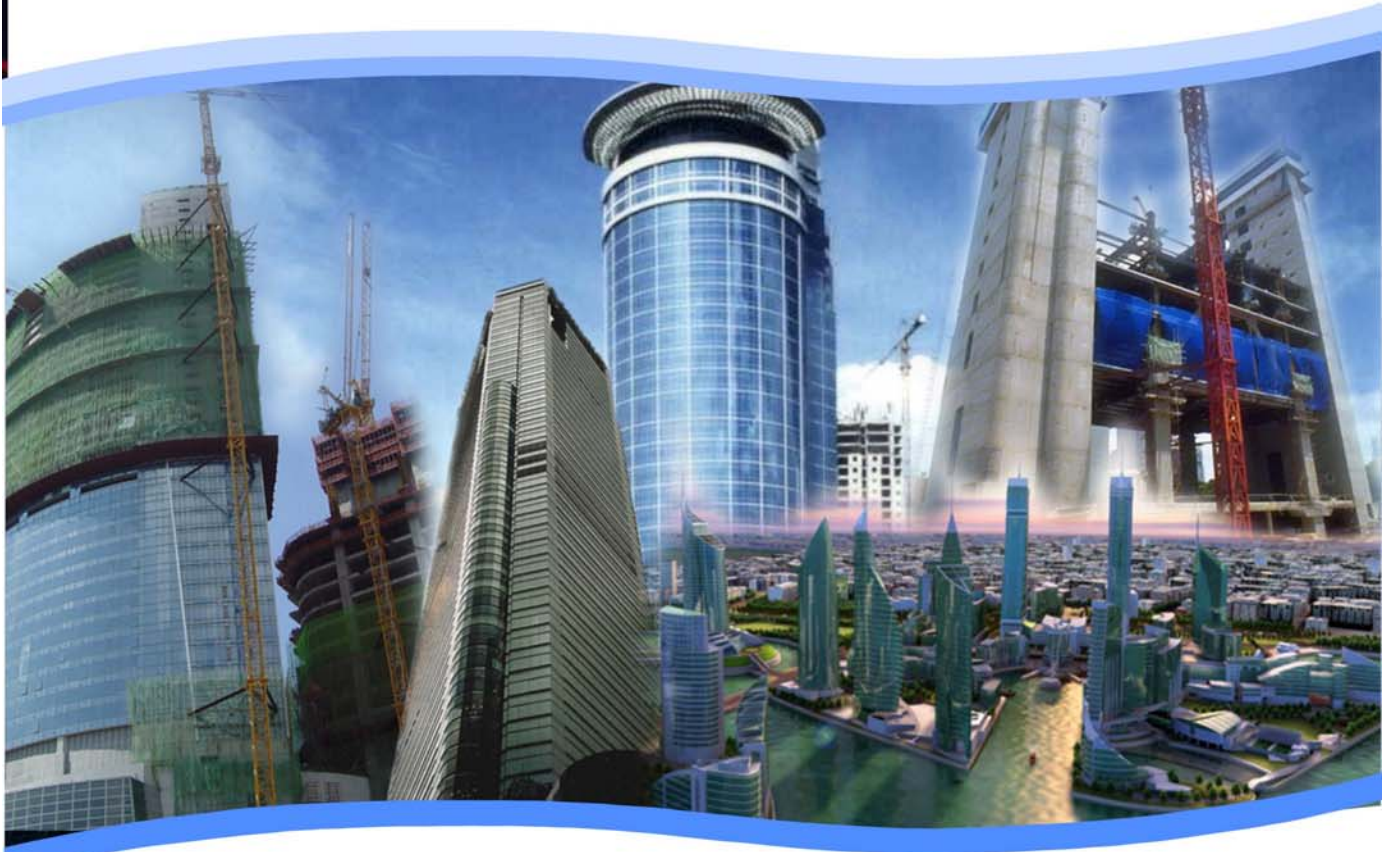
The LYSAGHT® brand name is synonymous with quality and performance. As with all other LYSAGHT® products, SMARTDEK™ " " profiled steel sheets comply with major design standards adopted across Asia.

3. World Wide Project Experience

Proven track of successful world wide project reference from previous profile (BONDEK, 2W-DEK, 3W-DEK, Etc) on medium to high rise buildings give us strong knowledge for implementary SMARTDEK on every construction.

Series Of Distinctive Test and Off Site Trials of SMARTDEK™





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