



**ARES FORMING SDN BHD**

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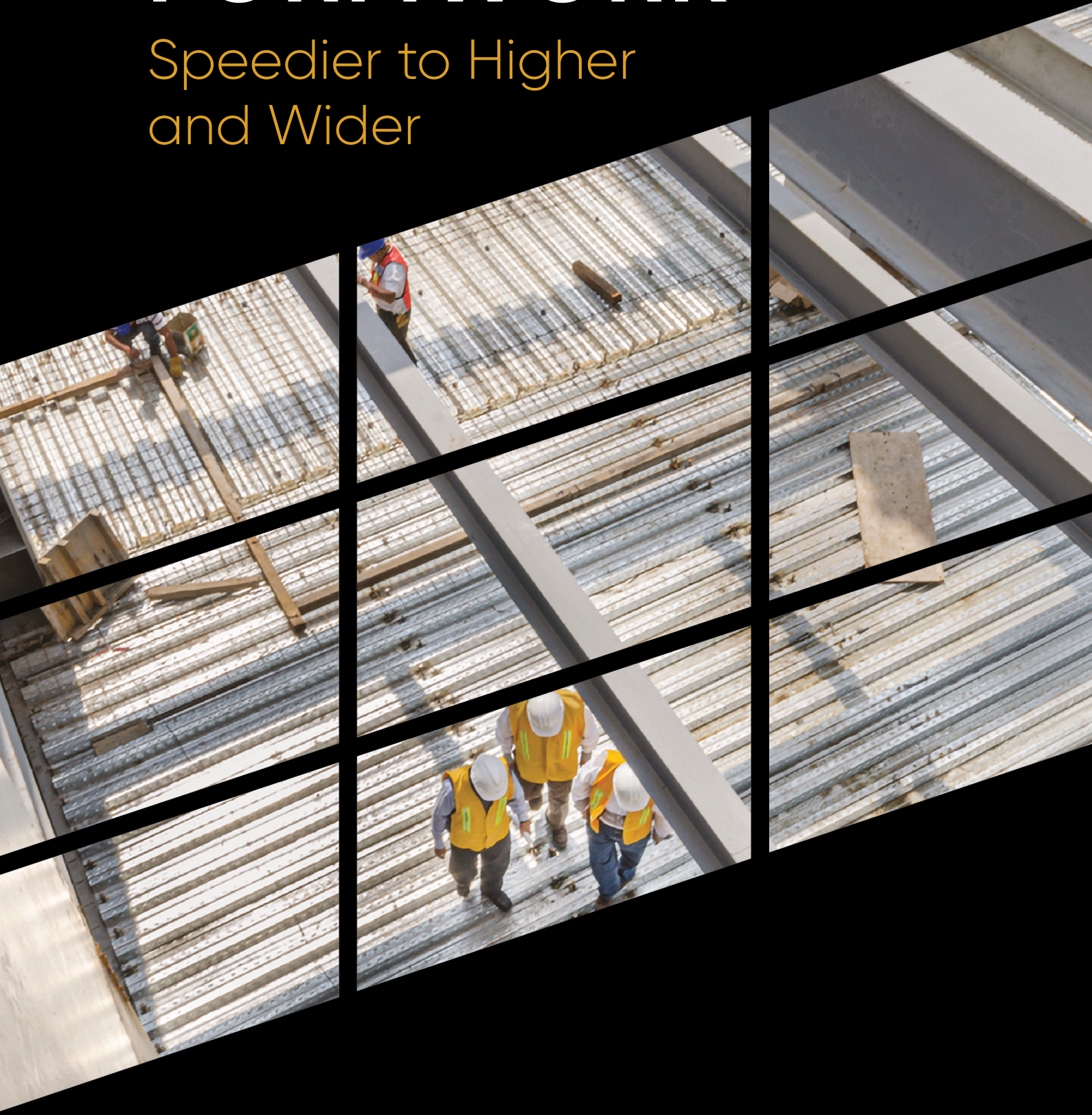




**ARES FORMING SDN BHD**

# STRUCTURAL FORMWORK

Speedier to Higher  
and Wider







# COMPANY INTRODUCTION

*Welcome to AresForming Sdn Bhd, a leading manufacturer of innovative construction materials based in Malaysia.*



Our company was founded in 2022 with the goal of providing high-quality, durable products that exceed industry standards. As a local business, we are proud to serve the needs of contractors and builders in Malaysia and the surrounding region.

At AresForming, we are dedicated to innovation and sustainability. We are constantly researching and developing new products that meet the evolving needs of the construction industry, while also being mindful of their environmental impact. We believe in providing our customers with the best possible solutions, and we are committed to delivering exceptional service every step of the way.

## > STRUCTURAL DECKING INTRODUCTION

Introducing Ares55 and Ares23 - our revolutionary structural decking solution that provides the ideal foundation for your construction projects.

Crafted from high-strength, durable materials, Ares55 and Ares23 are engineered to withstand even the most challenging environments. With its superior load-bearing capabilities and straightforward installation, our decking is the perfect choice for residential, commercial, and industrial applications.

Ares55 and Ares23 are available in a variety of sizes and profiles, ensuring it can be tailored to your specific needs. Whether you're constructing a new building or renovating an existing one, our decking provides a strong, stable, and long-lasting foundation. We invite you to learn more about the benefits of our structural decking and how it can enhance the performance and aesthetics of your next construction project.





## > FEATURES AND BENEFITS



### . High strength and durability:

Ares55 and Ares23 are made from top-quality materials that are designed to withstand the heaviest loads and the toughest weather conditions. It is resistant to rot, warp, and decay, making it an ideal choice for outdoor applications.

### . Easy installation:

Ares55 and Ares23 are designed for fast and easy installation, saving you time and labor costs. It can be easily cut and fit to any size or shape, making it suitable for a wide range of projects.

### . Versatility:

Ares55 and Ares23 are suitable for a variety of applications, including residential decks and patios, commercial and industrial flooring, and more. It can be used in both new construction and renovation projects, and it is compatible with a variety of fastening systems.



### . Customization:

Ares55 and Ares23 are available in a range of sizes and profiles to suit your specific needs. It can also be easily customized with different colors, finishes, and patterns to enhance the aesthetics of your project.

### . Sustainability:

Ares55 and Ares23 are made from eco-friendly materials that are sourced responsibly and produced with minimal waste. It is also fully recyclable, making it a sustainable choice for your construction projects.







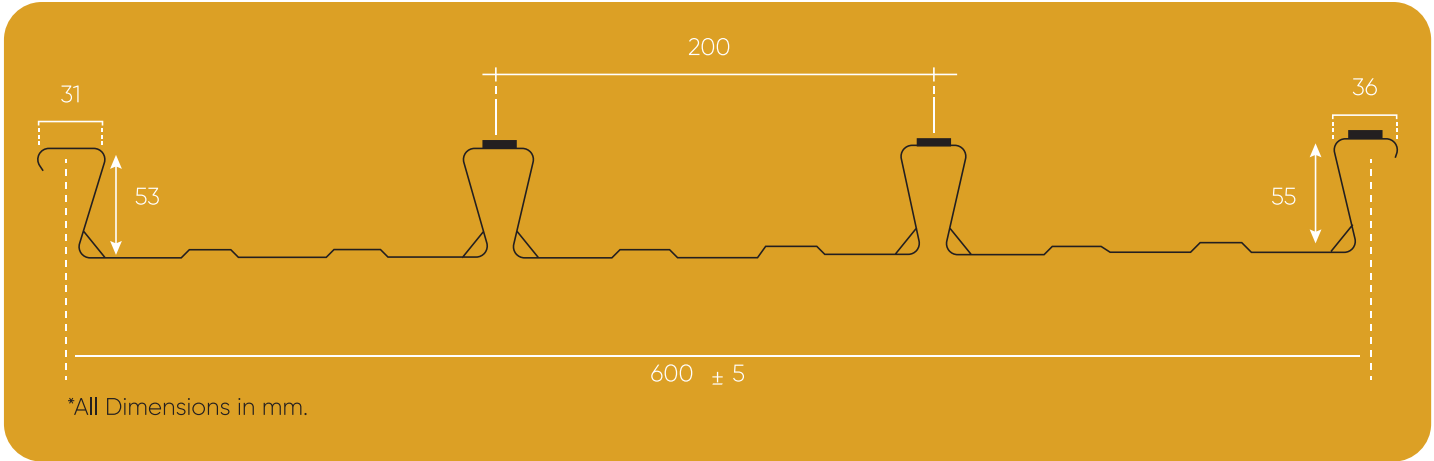
# ARES55

## TECHNICAL SPECIFICATION



### MATERIAL SPECIFICATION

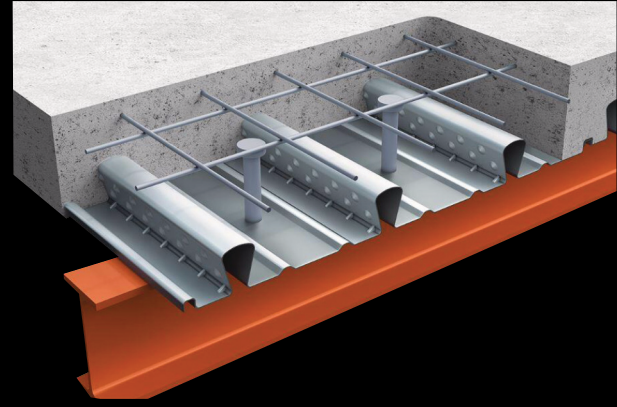
Ares55 is a sustainable decking solution, crafted with high tensile steel that guarantees a minimum yield stress of 500 MPa. Available in different thicknesses of base metal, the options are 0.75mm and 1.00mm. The galvanized coating used is Z275, which ensures a minimum of 275g/m<sup>2</sup> as per the standard of AS1397:2001. Other thicknesses and coating options are also available upon request, subject to availability.



| BMT (mm) | STEED GRADE (MPa) | ZINC COATING CLASS + | 2ND MOMENT OF AREA (cm <sup>4</sup> /m) | X- SECTIONAL AREA (mm <sup>2</sup> /m) | WEIGHT (kg/m <sup>2</sup> ) |
|----------|-------------------|----------------------|---|--|-----------------------------|
| 0.75     | 550               | Z275                 | 42.90                                   | 1248                                   | 10.41                       |
| 1.00     | 550               | Z275                 | 63.90                                   | 1664                                   | 13.66                       |
| 1.20     | 550               | Z275                 | 78.30                                   | 1997                                   | 16.48                       |

+ A zinc coating of total 275 g/m<sup>2</sup> (including both sides) is sufficient for internal doors in a non-aggressive environment, but the specification may be varied depending on service conditions—EN1994-1-1 4.2 (3)





## > ARES55 FORMWORK SPAN DESIGN

Ares55 is essential for constructing concrete structures that require temporary support during the casting process.

Its proper span design ensures the formwork is strong enough to support the concrete's weight, while being cost-effective and efficient.

Ares55's unique design also allows for longer spans, adding value to your project. With Ares55, you can be confident in the stability and durability of your concrete structure.

|                      |         |      |      |      |      |      |      |
|----------------------|---------|------|------|------|------|------|------|
| BMT                  | 0.75 mm |      |      |      |      |      |      |
| SLAB THICKNESS (DCs) | 110     | 120  | 130  | 150  | 175  | 200  | 250  |
| SINGLE SPAN          | 2500    | 2450 | 2400 | 2300 | 2200 | 2100 | 1800 |
| CONTINUOUS           | 3000    | 2900 | 2800 | 2600 | 2400 | 2200 | 1850 |
| BMT                  | 1.00 mm |      |      |      |      |      |      |
| SLAB THICKNESS (DCs) | 110     | 120  | 130  | 150  | 175  | 200  | 250  |
| SINGLE SPAN          | 2900    | 2850 | 2800 | 2700 | 2550 | 2400 | 2300 |
| CONTINUOUS           | 3700    | 3600 | 3500 | 3350 | 3150 | 3000 | 2750 |
| BMT                  | 1.20 mm |      |      |      |      |      |      |
| SLAB THICKNESS (DCs) | 110     | 120  | 130  | 150  | 175  | 200  | 250  |
| SINGLE SPAN          | 3100    | 3000 | 2950 | 2850 | 2700 | 2600 | 2450 |
| CONTINUOUS           | 4050    | 3950 | 3850 | 3650 | 3500 | 3300 | 3050 |

### ► Span Table Notes

- . The tables above denote maximum allowable centerline to centerline span (in mm) between supports.
- . Density of wet concrete is assumed at 2400 kg/m<sup>3</sup>.
- . Loading configurations during the various construction stages are considered in accordance with EN1994.
- . Construction load of 1.5kPa is adopted.
- . The deflection limit adopted is Span/130. For exposed soft, a deflection limit of Span/240 is recommended.
- . A minimum bearing width of 50mm of the permanent steel support and 125mm angle width have been considered.
- . When using the table for 2 or more spans the adjacent spans should not differ in length by more than 5%.
- . Ares Forming recommends a gauge of 1.00mm BMT for exposed soft in propped applications to avoid creasing of steel decking.
- . Please contact our sales & marketing department for further information.
- . Care must be exercised when placing concrete to avoid mounding.
- . Wide ply strips, of 300mm wide, shall be provided to prevent any concentrated loads being applied to the sheeting to avoid direct point loading of the sheet overlap ribs and unsupported edges of the sheeting.





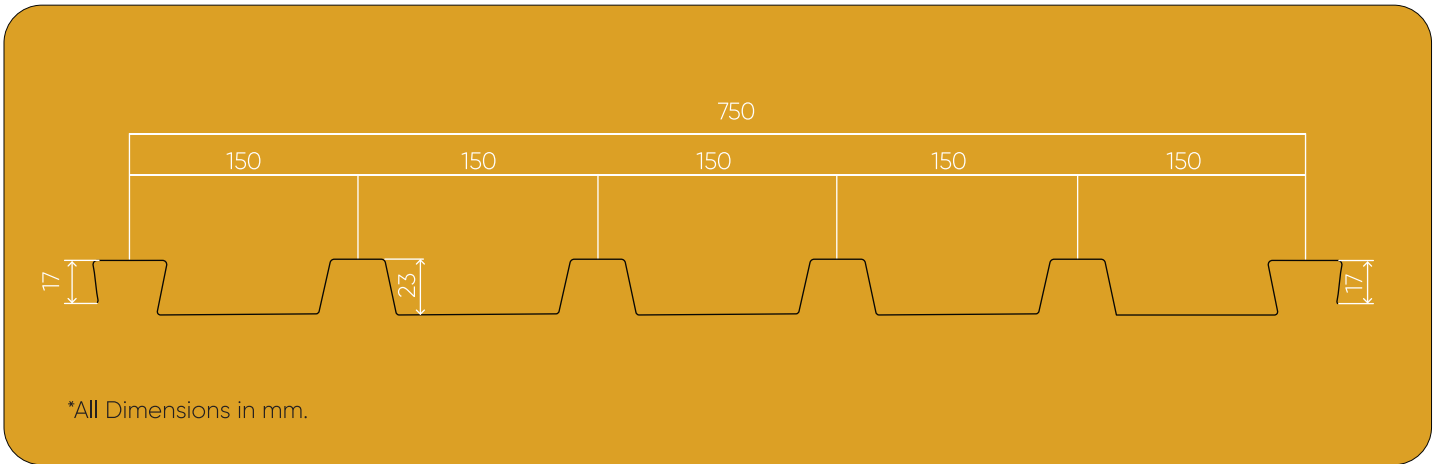
# ARES23

## TECHNICAL SPECIFICATION



### MATERIAL SPECIFICATION

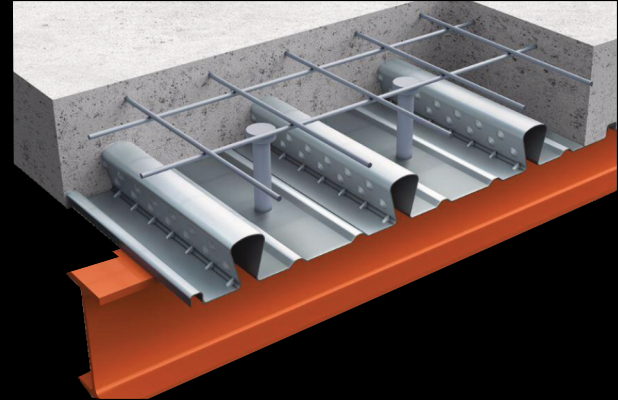
Ares23 offers a sustainable decking solution, meticulously designed with high tensile steel to ensure a minimum yield stress of 500 MPa. It comes in various base metal thicknesses, including 0.75mm and 1.00mm. The galvanized coating, Z275, maintains a minimum of 275g/m<sup>2</sup>, meeting the AS1397:2001 standard. Additional thicknesses and coating options are available upon request, based on availability.



| BMT (mm) | STEED GRADE (MPa) | ZINC COATING CLASS + | 2ND MOMENT OF AREA (cm <sup>4</sup> /m) | X- SECTIONAL AREA (mm <sup>2</sup> /m) | WEIGHT (kg/m <sup>2</sup> ) |
|----------|-------------------|----------------------|---|--|-----------------------------|
| 0.75     | 550               | Z275                 | 42.90                                   | 1248                                   | 8.33                        |
| 1.00     | 550               | Z275                 | 63.90                                   | 1664                                   | 10.93                       |

+ A zinc coating of total 275 g/m<sup>2</sup> (including both sides) is sufficient for internal doors in a non-aggressive environment, but the specification may be varied depending on service conditions—EN1994-1-1 4.2 (3)





## > ARES23 FORMWORK SPAN DESIGN

Ares55 is essential for constructing concrete structures that require temporary support during the casting process.

Its proper span design ensures the formwork is strong enough to support the concrete's weight, while being cost-effective and efficient.

Ares55's unique design also allows for longer spans, adding value to your project. With Ares55, you can be confident in the stability and durability of your concrete structure.

|                      |         |      |      |      |      |      |      |
|----------------------|---------|------|------|------|------|------|------|
| BMT                  | 0.75 mm |      |      |      |      |      |      |
| SLAB THICKNESS (Dcs) | 110     | 120  | 130  | 150  | 175  | 200  | 250  |
| SINGLE SPAN          | 2000    | 1950 | 1900 | 1800 | 1700 | 1635 | 1450 |
| CONTINUOUS           | 2500    | 2400 | 2300 | 2100 | 1900 | 1735 | 1500 |
| BMT                  | 1.00 mm |      |      |      |      |      |      |
| SLAB THICKNESS (DCs) | 110     | 120  | 130  | 150  | 175  | 200  | 250  |
| SINGLE SPAN          | 2270    | 2190 | 2120 | 2030 | 1930 | 1820 | 1740 |
| CONTINUOUS           | 3070    | 2940 | 2820 | 2680 | 2530 | 2420 | 2190 |

### ► Span Table Notes

- . The tables above denote maximum allowable centerline to centerline span (in mm) between supports.
- . Density of wet concrete is assumed at 2400 kg/m<sup>3</sup>.
- . Loading configurations during the various construction stages are considered in accordance with EN1994.
- . Construction load of 1.5kPa is adopted.
- . The deflection limit adopted is Span/130. For exposed soffits, a deflection limit of Span/240 is recommended.
- . A minimum bearing width of 50mm of the permanent steel support and 125mm angle width have been considered.
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- . Ares Forming recommends a gauge of 1.00mm BMT for exposed soffits in propped applications to avoid creasing of steel decking. Please contact our sales & marketing department for further information.
- . Care must be exercised when placing concrete to avoid mounding.
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## INSTALLATION GUIDELINES

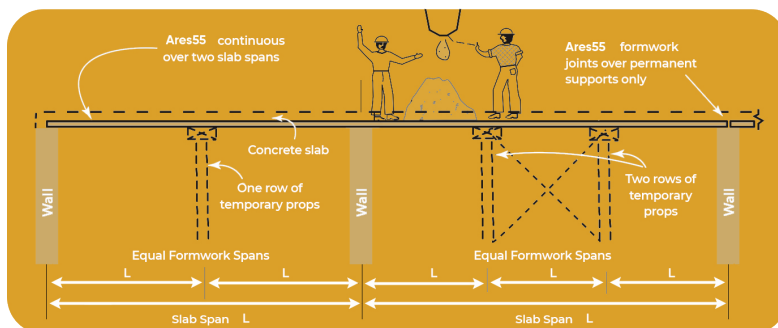
*Here are some additional installation guidelines for Ares55 & Ares23:*

### . Handling

Always handle Ares55 and Ares23 panels with care to avoid damage to the panel edges. Carefully stack the panels in a dry, flat, and level area.

### . Preparation:

Before installation, ensure that the site is level and free from any debris or obstruction that may interfere with panel placement. Check that the supporting structure is level, straight, and adequately secured.

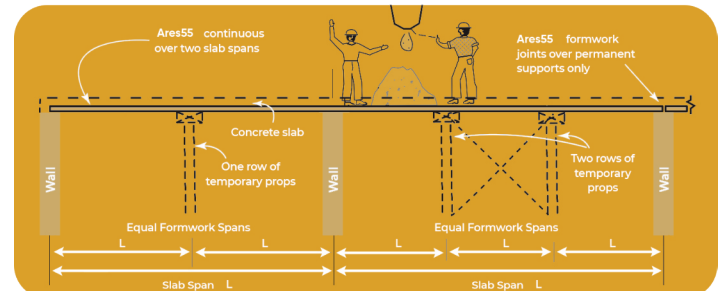


### . Concrete Placement:

The concrete should be placed in layers, and each layer should be compacted to remove any air voids. The concrete should be placed within the formwork as soon as possible after the decking is installed to prevent the decking from sagging.

### . Removing Temporary Propping:

The temporary propping should only be removed after the concrete has achieved sufficient strength to support its own weight and any loads that will be imposed on it. The propping should be removed in accordance with the relevant codes and standards, and the decking should be inspected for any signs of damage or deflection.



### . Layout:

Plan the panel layout to ensure the correct spacing of supports, and then mark out the panel positions using a chalk line.

### . Cutting:

Use a saw with a fine-toothed blade to cut Ares55 and Ares23 panels to the required size. Ensure that all cuts are straight and clean.

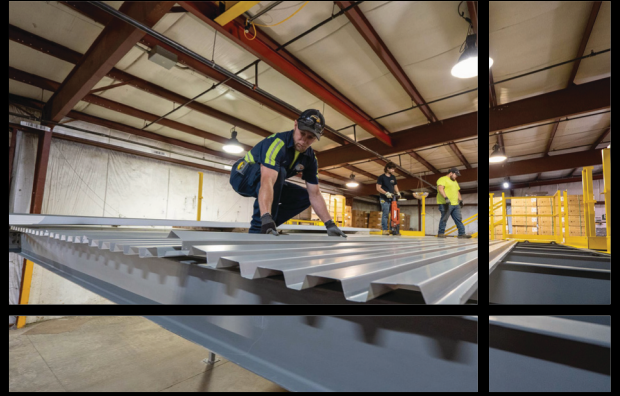
### . Installation:

Install Ares55 and Ares23 panels in a continuous span, with the embossed side facing upwards. Make sure the panels are adequately supported to avoid any deformation or collapse during the casting process. Use the recommended number of supports and spacing as per the span table to ensure the panel's proper load-bearing capacity.

By following these installation guidelines, you can ensure that Ares55 and Ares23 are installed correctly and will provide a safe and structurally sound platform for your construction project. Please consult with our sales and marketing department for more information on the installation guidelines for Ares55 and Ares23.



## > STORAGE & HANDLING



Storage and handling are critical aspects of ensuring the durability and longevity of structural decking products. Proper storage and handling can prevent damage to the material and ensure that it remains in good condition until it is ready to be installed.

### ► Storage:

#### **1. Store decking products on a flat surface:**

To prevent warping and bending, it's important to store structural decking products on a flat surface. This will help ensure that the material remains in good condition until it is ready to be installed.

#### **2. Keep decking products dry:**

Moisture can damage structural decking products, so it's important to keep them dry. Store the material in a covered area or use a waterproof tarp to protect it from the elements.

#### **3. Avoid exposure to extreme temperatures:**

Extreme heat or cold can damage decking products. Store the material in a temperature-controlled environment to prevent any damage.

#### **4. Protect the material during transportation:**

During transportation, protect the structural decking products from damage by securing them properly and using appropriate packaging.

### ► Handling:

#### **1. Use proper lifting equipment:**

Structural decking products can be heavy, so it's important to use proper lifting equipment to move them. This can include forklifts, pallet jacks, or cranes. Make sure the lifting equipment is rated to handle the weight of the decking product.

#### **2. Stack decking products properly:**

If you need to stack decking products, make sure to do so in a way that distributes weight evenly. Stack products in a way that creates a stable base, and avoid stacking them too high, as this can create a hazard.

#### **3. Inspect decking products before installation:**

Before installing structural decking products, inspect them for any damage that may have occurred during storage or handling. This can include warping, bending, or cracks. If you notice any damage, do not use the material for installation.

