# LYSAGHT® SMARTRUSS®

Steely Support For Your Biggest Visions





### **SMARTRUSS®**

# FAST, EFFICIENT, WELL-ENGINEERED STEEL TRUSS SOLUTION

**SMARTRUSS**® is a roof truss system that offers durability, affordability, strength, stability and compatibility with traditional building methods.

## **ADVANTAGES OF SMARTRUSS®**

#### **STRONG**

- Made using **TRUECORE®** G550 steel which is 30% stronger than mild steel
- Strength to weight ratio superior to all other common building materials
- New shape more efficient allowing lighter gauge to be used

### **High Buildability Score**

- Pre-fabricated roof trusses
- Reduced site labour
- Increased quality control

### Lightweight

- Easily handled
- Low cranage costs
- Lower foundation costs

#### Durable

- Resistant to, and limits the spread of, fire
- Termite, moisture and fungus resistant
- Electrically safe when properly earthed

### **Design Flexibility**

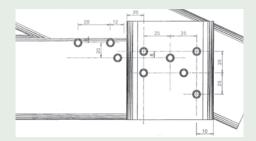
- High strength to weight ratio
- Provides larger spans and requires fewer supports
- Design tools facilitate structural design



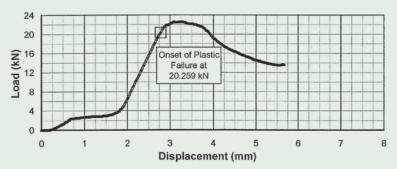








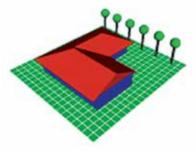
Heel Bearing Test of C75 1.0mm BMT Section with Short Stiffener and 9 off #12-14x20 Teks



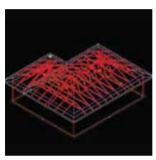
Load — Displacement of C75 1.0mm BMT 25 Degree Heel with Short Stiffener and 9 off #12-14x20 Teks Compression Test 1

### COMPUTER DESIGNED

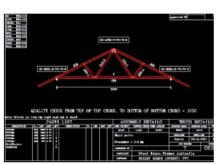
**LYSAGHT® SMARTRUSS®** truss designs are supported by **LYSAGHT® SUPRACADD®** detailing software which models the geometry, designs the roof trusses and facilitates manufacture by licensed manufacturers. This high-quality, industry leading software enables precise, customised truss designs with all the necessary details for accurate construction. Critically approved by industry professionals, it comes with a full set of cutting edge features, and forms the essential foundation for any successful, world-class building project.



STEP 1 - Input Building Layout



**STEP 2 -** Trusses are designed



**STEP 3 -** Engineering Calculation performed

## PRECISION MANUFACTURING



Truss components are manufactured



Bundled together and marketed



Can be fabricated off-site and delivered pre-assembled



Assembled on-site

### Accredited by the National Association of Testing Authorities (NATA)

LYSAGHT® Technology operates a NATA-registered structural testing laboratory together with a complete research and development facility.





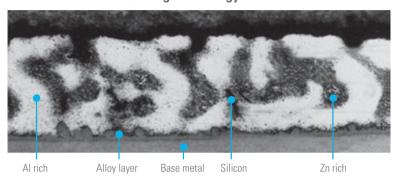


## WHY TRUECORE® STEEL?

### Key notes:

- High tensile strength minimum 550 MPa yield strength
- Structural load optimisation
  - Requires less building material
  - Reduces overall structural and lifting costs
- Corrosion-resistant coating technology
  - Highly resistant to corrosion and deformation
  - Unique in Malaysia
- Minimum service life of 50 years
- Certified to AS 1397 and MS 1196 by Sirim
- Conforms to JKR specifications BMT≤1.2mm (G550; AZ150)
- Certified to SIRIM ECO-LABEL Eco Friendly Coated Steel

### **Corrosion-resistant coating technology**



- Coatings are applied to steel to prevent rust
- TRUECORE® steel coated with a 55% aluminium, 43.5% zinc, 1.5% silicon alloy coating
- AZ150 coating class (50µm coating thickness both surface)
- Outperforms normal zinc galvanised steel by up to 4 times
- Total both sides according to AS 1397

### Advantages of TRUECORE® steel vs. Timber Trusses

- Material consistency
- Fire resistant
- Unaffected by termites
- Longevity
- Less installation errors
- Unaffected by warping

## Advantages of TRUECORE® steel vs. Mild Steel Trusses

- Light and easy handling
- Welding not required and screw fastened
- Speed of construction
- Does not require painting
- Corrosion resistant
- No material wastage

## Advantages of TRUECORE® steel vs. Galvanised Iron

- 4X stronger protection against corrosion
- Superior cut edge protection
- Better tight bend performance





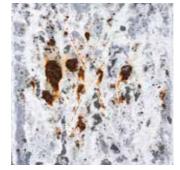


## WARRANTY\* OF 50 YEARS AGAINST PERFORATION BY CORROSION

### TRUECORE® STEEL CORROSION PERFORMANCE

	Galvanised steel 300g/m²	TRUECORE® steel 150g/m²
Cleveland Condensing Humidity Test	4032 hours to red rust	14000 hours to rust free
Salt Spray Chamber	295 hours to 5% red rust	2260 hours to 5% red rust

### **After 500 hours (Salt Spray Test)**





Galvanised steel Z180

TRUECORE® steel

## HOW TO IDENTIFY GENUINE TRUECORE® STEEL

Pay attention to the TRUECORE® steel branding text on every coil, which is your assurance of BlueScope commitment to quality. Branding text:





<sup>\*</sup> Warranty terms and conditions apply.



# **Trusted Partner for Building Systems**

### **NS BLUESCOPE LYSAGHT MALAYSIA SDN BHD**

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