

## Metallic Coated - MC

## Structural - S

### GENERAL DESCRIPTION

TRUECORE® steel is a continuous hot-dipped aluminium/zinc alloy-coated structural steel with a guaranteed minimum yield strength of 550MPa, manufactured using a blue-tinted resin.

### TYPICAL USES

Structural steel building frame where the product is not visible. For material selection advice, please contact your nearest BlueScope sales office.

### AUSTRALIAN STANDARD

AS 1397

### MALAYSIAN STANDARD

MS 1196

### GUARANTEED PROPERTIES OF STEEL BASE

| MECHANICAL PROPERTIES            | GUARANTEED MINIMUM (LONGITUDINAL TENSILE) |
|----------------------------------|---|
| Yield Strength, MPa              | 550                                       |
| Tensile Strength, MPa            | 570                                       |
| Elongation on 50mm (≥ 0.60mm), % | 2   |

### CHEMICAL COMPOSITION OF STEEL BASE

| CHEMICAL PROPERTIES | GUARANTEED MAX % |
|---------------------|------------------|
| Carbon – C          | 0.20             |
| Manganese – Mn      | 1.20             |
| Phosphorus – P      | 0.035            |
| Sulphur – S         | 0.030            |

### METAL COATING ADHESION - 180° BEND TEST

| COATING CLASS |    |
|---------------|----|
| AZ150         | 2t |
| AZ200         | 2t |

#### Notes

Where t = the diameter of mandrel in terms of thickness of product.

### FIRE HAZARD PROPERTIES – AS/NZS1530.3

| INDEX                 | RANGE | RESULT |
|-----------------------|-------|--------|
| Ignitability Index    | 0-20  | 0      |
| Spread Of Flame Index | 0-10  | 0      |
| Heat Evolved Index    | 0-10  | 0      |
| Smoke Developed Index | 0-10  | 0-1    |

### DIMENSIONAL CAPABILITIES\*

| PREFERRED BASE METAL THICKNESS, mm                                 | MAXIMUM WIDTH, mm |
|--|-------------------|
| 0.42**, 0.45, 0.48, 0.50, 0.55, 0.60, 0.70, 0.75, 0.80, 1.00, 1.20 | 1219              |

#### Notes

\* Not every combination of thickness and width may be available. Supply conditions may be subject to dimensional restrictions and are subject to BlueScope Sales and Marketing confirmation. Slitting and shearing available on request from BlueScope Sales Offices. For requirements outside the standard product range please contact your local Sales Office.

\*\* In slit form.

### NORMAL/OPTIONAL SUPPLY CONDITIONS

|                       | NORMAL                    | OPTIONAL#                     |
|-----------------------|---------------------------|-------------------------------|
| Coating Class         | AZ150                     | AZ200                         |
| Surface Condition     | Spangled                  | Skin Passed                   |
| Surface Treatment     | Passivated & Resin Coated | Passivated & Non-Resin Coated |
| Branding              | Branded                   | Not Branded                   |
| Dimensions Tolerance* | Class A                   | -                             |
| Flatness Tolerance*   | Class A                   | -                             |

#### Notes

# Optional supply conditions may be subject to dimensional restrictions.

\* The dimensional tolerances for thickness, width flatness and camber shall be in accordance with the requirements of AS/NZS 1365.

### NS BLUESCOPE MALAYSIA SDN BHD (199101012824 (223136-P))

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**Metallic Coated - MC****Structural - S****FABRICATING PERFORMANCE**

| METHOD   | RATING | METHOD                | RATING |
|----------|--------|-----------------------|--------|
| Bending  | 1      | Roll Forming          | 3      |
| Drawing  | NR     | Welding               | 4*     |
| Pressing | NR     | Painting Pretreatment | -      |

**Notes**

Where: 1 = Limited to 5 = Excellent or NR = Not Recommended

\* Welding design must allow for some strength reduction near welds

**IMPORTANT INFORMATION**

1. Spangle variance from coil to coil is an inherent characteristic of metallic alloy coating process and will not affect the performance of the product. It is therefore not a cause for rejection.
2. Typical mechanical properties are based on typical product despatched to customers. Note that ductility will decline through a natural ageing process during storage and/or paint stoving cycle.
3. Material should be used promptly (within six months) to avoid the possibility of a storage related corrosion. Roll-forming mark does not affect the performance of TRUECORE® steel. For selection of the most appropriate metallic coated steel, please refer to technical bulletins TB1a, TB1b, CTB21 and CTB22. For storage, roll-forming lubricants and other information, please refer to the Technical Bulletins.
4. We recommend storage in bore vertical orientation to prevent coil slump. If you wish to know more about the consequence of coil slump, please refer to our Fact Sheet 2, link: <https://www.nsbluescope.com/my/wp-content/uploads/sites/7/2020/10/Fact-Sheet-Coil-Slump.pdf>.
5. Use of aged coil might lead to quality issue during roll-forming process. To determine if warranties apply for aged coil, please contact your nearest BlueScope sales office for advice.

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Please ensure you have the current datasheet for this product as displayed at [www.nsbluescope.com](http://www.nsbluescope.com)