ZINCALUME® 340 Class 2 steel



Technical Data Sheet

Document No. 007

Revision - 0

April 2015

This literature supersedes all previous issues.

Product

ZINCALUME® 340 Class 2 steel is hot dipped Al-Zn (55% Al, 43.5% Zn, 1.5% Si) alloy coated steel with guaranteed minimum yield strength of 340 MPa with good ductility.

Typical Uses

Roofing, Cladding, Rain Water Goods

Standard*

ASTM A 792M

*Other standards (e. g. AS 1397, ISO 9364, IS15961, etc.) and grades on specific agreement

Properties of Steel Base

| Mechanical Properties | Guaranteed Minimum |
|------------------------|--------------------|
| Logitudinal tensile | |
| Yield Strength, MPa | 340 |
| Tensile Strength, MPa | - |
| Elongation on 50 mm, % | 12 |
| Hardness, HR30T | 50 - 70 |

Chemical Composition of Steel Base

| Element | Guaranteed Max#(%) |
|----------------|--------------------|
| Carbon (C) | 0.25 |
| Manganese (Mn) | 1.35 |
| Phosphorus (P) | 0.20 |
| Sulphur (S) | 0.04 |

[#] Values shown refer to relevant standard unless specifically agreed to # Other elements that are not harmful for the application may be present

Coating Class

| | Minimum Coating - Total Both Surfaces, g/m² | | |
|---------------|---|------------------|--|
| Coating Class | Triple Spot Test | Single Spot Test | |
| AZM150 | 150 | 130 | |
| AZM165 | 165 | 150 | |
| AZM180 | 180 | 155 | |
| AZM210 | 210 | 180 | |

Coating Adhesion - 180° Bend Test

| Coating Class | Guaranteed Minimum |
|------------------------------------|--------------------|
| AZM150 / AZM165 AZM180 / AZM210 | 2t |

Dimension Range & Tolerances**

| Base Metal Thickness (mm) | | | |
|---------------------------|--------------|--------------|--|
| Range | Tolerance | | |
| | Width ≤ 1200 | Width > 1200 | |
| 0.30 - 0.50 | ± 0.03 | ± 0.04 | |
| 0.51 - 0.80 | ± 0.04 | ± 0.05 | |
| 0.81 - 1.20 | ± 0.05 | ± 0.06 | |
| 1.21 - 1.30 | ± 0.06 | ± 0.07 | |

| Width (mm) | | |
|----------------------|-----------|--|
| Range | Tolerance | |
| | | |
| < 900 (in slit edge) | +1 / - 0 | |
| 914 - 1000 | + 4 / - 0 | |
| 1001 - 1250 | + 5 / - 0 | |
| | | |

^{**}For requirements beyond the standard product range & tolerance, please contact Tata BlueScope Steel Office

Fire Hazard Properties (AS/NZS 1530.3)

| Index | Range | Rating |
|-----------------------|-------|--------|
| 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 |

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Supply Conditions

| Supply Condition | Normal | Optional |
|-------------------|-----------------------------|--|
| Surface Condition | Spangled | - |
| Coating Class | AZM150 | AZM165, AZM180, AZM210 ⁱ |
| Surface Treatment | Passivated and Resin coated | Passivated (for post painting) ⁱⁱ |
| Branding | Branded | Unbranded |
| Tolerance Class | | |
| 1. Dimensions | A Class | - |
| 2. Flatness | A Class | - |

i) Dimensional and shape tolerances as per ASTM A 924M, ii) Product without Resin will not have "Anti-Fingerprint" quality.

Fabrication Performance

| Method | Rating [#] | Method | Rating# |
|--------------|---------------------|-----------------------------|---------|
| Drawing | - | Lock Forming | 4 |
| Pressing | 3 | Welding | 4 |
| Bending | 5 | Painting with Pre-treatment | 5 |
| Roll-forming | 5 | | |

[#] where 1 = limited to 5 = excellent, NR = not recommended

Material should be used promptly (within 6 months) to avoid the possibility of improper storage related corrosion & change in performance due to ageing

Typical Property Ranges (For Normal Supply Product)

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| | Yield Strength (MPa) | |
|------|------------------------------|---------|
| | Minimum | Maximum |
| 0.45 | 350 | 450 |
| 0.60 | 340 | 400 |
| 0.80 | 340 | 390 |
| 1.00 | 340 | 420 |
| 1.20 | 340 | 430 |
| | Tensile Strength (MPa) | |
| 0.45 | 430 | 490 |
| 0.60 | 430 | 490 |
| 0.80 | 420 | 500 |
| 1.00 | 410 | 530 |
| 1.20 | 410 | 530 |
| | Total Elongation on 50mm (%) | |
| 0.45 | 18 | 28 |
| 0.60 | 20 | 30 |
| 0.80 | 22 | 30 |
| 1.00 | 23 | 31 |
| 1.20 | 24 | 32 |