ZINCALUME® G300 Steel



Technical Data Sheet

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This literature supersedes all previous issues.

Product

ZINCALUME® G300 steel is a hot-dipped Al-Zn alloy coated structural steel with guaranteed minimum yield strength of 300MPa with good ductility. Suitable for roll forming to a minimum internal diameter of 1t.

Typical Uses

Roofing, Cladding, General Manufactured Articles

Standard*

Certified Standard: IS 15961

Reference Standard: ASTM A 792M, ISO 9364, AS1397

Properties of Steel Base

| Mechanical Properties | Guaranteed Minimum |
|------------------------|--------------------|
| Logitudinal Tensile | |
| Yield Strength, MPa | 300 |
| Tensile Strength, MPa | 340 |
| Elongation on 80 mm, % | 18 |

Chemical Composition of Steel Base

| Element | Guaranteed Max(%) |
|----------------|-------------------|
| Carbon (C) | 0.25 |
| Manganese (Mn) | 1.7 |
| Phosphorus (P) | 0.050 |
| Sulphur (S) | 0.045 |

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 | |
| AZ150 | 150 | 135 | |
| AZ200 | 200 | 180 | |

Coating Adhesion - 180° Bend Test

| Coating Class | Guaranteed Minimum |
|---------------|--------------------|
| AZ150 / AZ200 | 1t |

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 | |
| | | |

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 |

ZINCALUME® G300 steel



Supply Conditions

This literature supersedes all previous issues.

| Supply Condition | ondition Normal Optional | |
|-----------------------|-----------------------------|-----------------------------|
| Coating Class | AZ150*#* | AZ200*#** |
| Surface Condition | Spangled – | |
| Surface Treatment | Passivated and Resin coated | Passivated and Resin coated |
| Branding | Branded | Branded |
| Flatness Tolerance*** | A Class | A Class |

^{*} Metallic coating of minimum 150 g/m², ** Metallic coating of minimum 200 g/m², *** Dimensional and shape tolerances as per IS/ISO 16163 # where 1 = limited to 5 = excellent, NR = not recommended

Fabrication Performance

| Method | Rating# | Method | Rating# |
|--------------|---------|-----------------------|---------|
| Drawing | 2 | Lock Forming/ Seaming | 5 |
| Pressing | 2 | Welding | 4 |
| Bending | 5 | Painting | NR |
| 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)

| Yield Strength (MPa) | | | |
|------------------------------|------------------------|---------|--|
| | Minimum | Maximum | |
| 0.35 | 330 | 400 | |
| 0.45 | 320 | 390 | |
| 0.75 | 315 | 385 | |
| 1.0 | 310 | 375 | |
| 1.2 | 300 | 370 | |
| | Tensile Strength (MPa) | | |
| 0.35 | 410 | 460 | |
| 0.45 | 400 | 450 | |
| 0.75 | 395 | 440 | |
| 1.0 | 385 | 430 | |
| 1.2 | 375 | 420 | |
| Total Elongation on 80mm (%) | | | |
| 0.35 | 18 | 28 | |
| 0.45 | 20 | 30 | |
| 0.75 | 23 | 31 | |
| 1.0 | 25 | 32 | |
| 1.2 | 25 | 32 | |

Note

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