

# Inspection Certificate EN10204 – 3.1



Certificate No : 1609LB3443

Hulamin Operations Proprietary Limited Reg No: 1999/0204/10/07 VAT Reg. No: 4570235962  
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|               |                    |             |                      |  |
|---------------|--------------------|-------------|----------------------|--|
| <b>BUYER:</b> | Hulamin Load No:   | HL029710    | Product :            | SHEET ,, 5754-H22 4 mm x 1500 mm x 3000 mm |
|               | Lot No :           | 08/09/159G8 | Dimension :          | 4 mm X 1500 mm X 3000 mm                   |
|               | P/List No :        | 2/1635421   | Alloy - Temper :     | 5754 - H22                                 |
|               | Release No :       | RE156671    | Certificate No :     | 1609LB3443                                 |
|               | Cust Order No :    | R001711     | Cust Ref/Part No:    |  |
|               | HULAMIN Order No : | 677896E     | Combined P/List No : | R182779                                    |
|               | Item Part :        | 1/1         |                      |  |

## MECHANICAL TEST RESULTS

| Lot No.     | Cast No.   | Metal Id    | Alloy | Spec No | Mechanical Properties |           |                    |            |          |                   |           |                   |        |
|-------------|------------|-------------|-------|---------|-----------------------|-----------|--------------------|------------|----------|-------------------|-----------|-------------------|--------|
|             |            |             |       |         | Proof (MPa)           | UTS (MPa) | Elongation A50 (%) | Earing (%) | TestDate | Gauge Length (mm) | Bend Test | Actual Gauge (mm) |        |
| 08/09/159G8 | 16265C42L3 | 16-47268089 | 5754  | Min     | 130                   | 220       | 10                 |            |          |                   | 50        |                   | 3.78   |
|             |            |             |       | Max     | 270                   | 267       | 18                 |            | 30/09/16 | 50                |           | 3.8820            |        |
|             |            |             |       | 1       | 208                   | 267       | 18                 |            |          |                   | 50        |                   | 3.8700 |
|             |            |             |       | 2       | 210                   | 268       | 18                 |            |          |                   | 50        |                   |        |

## CHEMICAL COMPOSITION

| Cast No. | Alloy | Si (%) | Fe (%) | Cu (%) | Mn (%) | Mg (%) | Cr (%) | Zn (%) | Ti (%) | Each(%) | Total(%) | All(%) |
|----------|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|----------|--------|
| Min      |       | 0.40   | 0.40   | 0.10   | 0.50   | 2.6    | 0.30   | 0.20   | 0.15   |         | 0.15     |        |
| Max      |       | 0.14   | 0.21   | 0.01   | 0.3    | 3.0    | 0.00   | 0.01   | 0.02   |         |          | 96.30  |

## INSPECTION CERTIFICATE IN ACCORDANCE WITH EN 10204 - 3.1 MATERIAL COMPLEES WITH EN 573, EN 485

For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded "to the nearest unit" in the last right-hand digit used in expressing the specification limit, in accordance with the rounding method of ASTM Practice E29, for Using Significant Digits in Test Data to Determine Conformance with Specifications.

WE HEREBY CERTIFY, THAT THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLEES WITH THE TERMS OF THE ORDER CONTRACT. THE INSPECTION RESULTS INDICATED IN THE CHEMICAL COMPOSITION HAVE BEEN OBTAINED FROM CAST ANALYSIS.

T.P. Nguwane - Rolled Products Technical Manager



EN 15088  
0836-CP-R-13/F/067

**INSPECTION CERTIFICATE**

REP039 - 171500

EN 10204 3.1

Order Number Aludium **111712**

Date **22/09/2016**

Certificate Number **W7911 - 7909**

Shipment doc. Ref. **7909**

| Your Order nr | Your Article | Your Alloy | Your Temper | Quantity |
|---------------|--------------|------------|-------------|----------|
| R001741       | 34403        | 5754       | H22         | 3195     |

**Global specification**  
SE-5754|H22|MF|2.5 x 1500 x 3000 mm  
Dimensions T x W x L 2.5 x 1500 x 3000 mm

| Chemical Composition |      |      |      |      |      |      |      |      |      | 5754 |
|----------------------|------|------|------|------|------|------|------|------|------|------|
| Cast no              |      | %Si  | %Fe  | %Cu  | %Mn  | %Mg  | %Cr  | %Zn  | %Ti  |      |
| 20342                |      | 0,08 | 0,29 | 0,00 | 0,16 | 2,80 | 0,01 | 0,00 | 0,00 |      |
| Limit                | Min. |      |      |      |      |      |      |      |      |      |
|                      | Max. | 0,40 | 0,40 | 0,10 | 0,50 | 3,60 | 0,30 | 0,20 | 0,15 |      |

| Mechanical Properties   |        |         |             |              |          |      |
|-------------------------|--------|---------|-------------|--------------|----------|------|
| Cast no                 | SO     | Pallet  | Rm<br>MPa   | Rp0.2<br>MPa | A50<br>% |      |
| 20342                   | 124755 | 1081202 | 261         | 224          | 13,0     |      |
|                         |        | 1081203 | 261         | 224          | 13,0     |      |
|                         |        | 1081204 | 261         | 224          | 13,0     |      |
| Limit                   |        |         | Min.        | 220          | 130      | 10,0 |
|                         |        |         | Max.        | 270          |          |      |
| <i>Sample direction</i> |        |         | TRANSVERSAL |              |          |      |

Material produced according to order requirements

Approved by  
*Carlos Rivo López*  
Quality Manager

