

# Aluminium - 6082 T6

## Unequal Angle

## Properties

| Stock                |               | Chemical Properties |                        |
|----------------------|---------------|---------------------|------------------------|
| Size (in)            | Weight/m (Kg) | Element             | Chemical composition % |
| 3/4 x 1/2 x 1/16     | 0.13          | Manganese (Mn)      | 0.40 - 1.00            |
| 3/4 x 1/2 x 1/8      | 0.25          | Iron (Fe)           | 0.0 - 0.50             |
| 1 x 1/2 x 1/16       | 0.15          | Magnesium (Mg)      | 0.60 - 1.20            |
| 1 x 1/2 x 1/8        | 0.30          | Silicon (Si)        | 0.70 - 1.30            |
| 1 x 5/8 x 1/8        | 0.33          | Copper (Cu)         | 0.0 - 0.10             |
| 1 x 3/4 x 1/16       | 0.18          | Zinc (Zn)           | 0.0 - 0.20             |
| 1 x 3/4 x 1/8        | 0.36          | Titanium (Ti)       | 0.0 - 0.10             |
| 1 1/4 x 1/2 x 1/8    | 0.36          | Chromium (Cr)       | 0.0 - 0.25             |
| 1 1/4 x 3/4 x 1/8    | 0.41          | Aluminium (Al)      | Balance                |
| 1 1/4 x 1 x 1/8      | 0.47          |                     |                        |
| 1 1/2 x 1/2 x 1/8    | 0.41          |                     |                        |
| 1 1/2 x 3/4 x 1/16   | 0.24          |                     |                        |
| 1 1/2 x 3/4 x 1/8    | 0.46          |                     |                        |
| 1 1/2 x 1 x 1/8      | 0.52          |                     |                        |
| 1 3/4 x 1 x 1/8      | 0.57          |                     |                        |
| 50 x 25 x 3mm        | 0.59          |                     |                        |
| 2 x 1/2 x 1/8        | 0.52          |                     |                        |
| 2 x 3/4 x 1/8        | 0.57          |                     |                        |
| 2 x 1 x 1/8          | 0.63          |                     |                        |
| 2 x 1 x 3/16         | 0.92          |                     |                        |
| 2 x 1 x 1/4          | 1.20          |                     |                        |
| 2 x 1 1/2 x 1/8      | 0.74          |                     |                        |
| 2 x 1 1/2 x 3/16     | 1.09          |                     |                        |
| 2 x 1 1/2 x 1/4      | 1.42          |                     |                        |
| 2 1/2 x 1 x 1/8      | 0.73          |                     |                        |
| 2 1/2 x 1 1/2 x 1/8  | 0.85          |                     |                        |
| 2 1/2 x 1 1/2 x 3/16 | 1.25          |                     |                        |
| 2 1/2 x 1 1/2 x 1/4  | 1.64          |                     |                        |
| 3 x 1 x 1/8          | 0.85          |                     |                        |
| 3 x 1 x 1/4          | 1.64          |                     |                        |
| 3 x 1 1/2 x 1/8      | 0.96          |                     |                        |
| 3 x 1 1/2 x 3/16     | 1.40          |                     |                        |
| 3 x 1 1/2 x 1/4      | 1.86          |                     |                        |
| 3 x 2 x 1/8          | 1.07          |                     |                        |
| 3 x 2 x 3/16         | 1.58          |                     |                        |
| 3 x 2 x 1/4          | 2.08          |                     |                        |
| 3 x 2 1/2 x 1/8      | 1.07          |                     |                        |
| 3 x 3 x 1/8          | 1.06          |                     |                        |
| 3 x 3 x 3/16         | 1.28          |                     |                        |
| 3 x 3 x 1/4          | 1.91          |                     |                        |
| 3 x 3 x 3/8          | 2.52          |                     |                        |
| 4 x 3 x 1/8          | 3.69          |                     |                        |

  

| Mechanical Properties |         |
|-----------------------|---------|
| Property              | Value   |
| Proof Stress          | 170 MPa |
| Tensile Strength      | 260 MPa |
| Elongation            | 19%     |
| Shear Strength        | 170 MPa |
| Hardness Vickers      | 75 HV   |

  

| Physical Properties    |                              |
|------------------------|------------------------------|
| Property               | Value                        |
| Density                | 2.70 g/cm <sup>3</sup>       |
| Melting Point          | 555°C                        |
| Thermal Expansion      | 24 x 10 <sup>-6</sup> /K     |
| Modulus of Elasticity  | 70 GPa                       |
| Thermal Conductivity   | 180 W/m.K                    |
| Electrical Resistivity | 0.038 x 10 <sup>-6</sup> Ω.m |

|                |      |
|----------------|------|
| 100 x 50 x 6mm | 2.26 |
| 100 x 50 x 8mm | 3.08 |
| 4 x 2 x 1/8    | 1.28 |
| 4 x 2 x 1/4    | 2.51 |
| 4 x 3 x 1/4    | 2.95 |
| 120 x 60 x 8mm | 3.73 |
| 6 x 2 x 3/8    | 5.00 |
| 6 x 3 x 3/8    | 5.63 |

## Disclaimer

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