

# Alloy 2007, 2030 by nissal newmet

According to EU directives: 2000/53/CE (ELV) - 2011/65/EU (RoHS II)

Color code EU **BLACK**

| PRODUCTION PROGRAM |          |         |         |
|--------------------|----------|---------|---------|
| Unit:mm            |          |         |         |
| Drawn              | 10 ÷ 65  | 10 ÷ 36 | 20 ÷ 36 |
| Extruded           | 20 ÷ 120 | 20 ÷ 36 | 20 ÷ 36 |

Alloys AA2030 and 2007 are alloys for high speed automatic lathes. This alloy is the most often selected when it is required to have a good combination of machinability and high mechanical properties. It has low corrosion resistance. Both alloys have been developed for use in automotive industries. Main applications: screws, bolts, nuts, threaded bars.

## CHEMICAL COMPOSITION

| Alloy | Si   | Fe   | Cu      | Mn    | Mg      | Cr   | Ni   | Zn   | Ti   | Pb    | Bi   | Other              | Al        |
|-------|------|------|---------|-------|---------|------|------|------|------|-------|------|--------------------|-----------|
| 2007  | ≤0.8 | ≤0.8 | 3.3+4.6 | 0.5+1 | 0.4+1.8 | ≤0.1 | ≤0.2 | ≤0.8 | ≤0.2 | 0.8+1 | ≤0.2 | Each 0.1 Total 0.3 | Remainder |
| 2030  | ≤0.8 | ≤0.7 | 3.3+4.5 | 0.2+1 | 0.5+1.3 | ≤0.1 | ≤0.2 | ≤0.5 | ≤0.2 | 0.8+1 | ≤0.2 | Each 0.1 Total 0.3 | Remainder |

## PHYSICAL PROPERTIES

|                                        |                                           |        |
|----------------------------------------|-------------------------------------------|--------|
| Density                                | $\frac{\text{Kg}}{\text{dm}^3}$           | 2.85   |
| Modules of elasticity                  | MPa                                       | 71.000 |
| Coefficient of thermal expansion       | $\frac{\times 10^{-6}}{^{\circ}\text{C}}$ | 23.5   |
| Thermal conductivity at 20°C           | $\frac{\text{W}}{\text{mk}}$              | 140    |
| Typical electrical resistivity at 20°C | $\frac{\Omega\text{mm}^2}{\text{m}}$      | 0.057  |

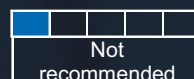
## MECHANICAL PROPERTIES

|          | Temper         | Diam mm   | Rm Mpa | Rp Mpa | A% | HBW Tipical |
|----------|----------------|-----------|--------|--------|----|-------------|
|          |                |           |        |        |    |             |
| Drawn    | T3             | ≤30       | 370    | 240    | 7  | 95          |
|          | T3             | 30<D≤80   | 340    | 220    | 6  | 95          |
|          | T351           | ≤80       | 370    | 240    | 5  | 95          |
| Extruded | T4,T4510,T4511 | ≤80       | 370    | 250    | 8  | 95          |
|          | T4,T4510,T4511 | 80<D≤200  | 340    | 220    | 8  | 95          |
|          | T4,T4510,T4511 | 200<D≤250 | 330    | 210    | 7  | 95          |

| PROPERTIES                          | T3/T4 |  |  |  |
|-------------------------------------|-------|--|--|--|
| Mechinability                       |       |  |  |  |
| Protective anodizing                |       |  |  |  |
| Decorative anodizing                |       |  |  |  |
| Hard anodizing                      |       |  |  |  |
| Resistance to atmospheric corrosion |       |  |  |  |
| Resistance to marine corrosion      |       |  |  |  |
| MIG-TIG weldability                 |       |  |  |  |
| At resistance weldability           |       |  |  |  |
| Brazing weldability                 |       |  |  |  |
| Plastic formability when cold       |       |  |  |  |
| Plastic formability when hot        |       |  |  |  |



Legend



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