








ALUMINIUM VARIANTS

| Products | Shape (According to EN 573.-) | Other Designation | Delivery status | Thick | Mechanical properties | | | | Characteristics | Use | |
|--|----------------------------------|-------------------|--|--------------------------------------|---|---|---|------------------------------------|-----------------|--|---|
| | | | | | Rm (Mpa) | Rp0.2 (Mpa) | A% | HB Levels | | | |
| 5083H111 / 5083C | | | | | | | | | | | |
|  | | AlMg4.5Mn0.7 | AG4.5MC ALL : 3.3547 DIN : AlMg4.5Mn | H111 Cast 0 | | 260 | 110 | 12 | | Very good processibility Slight deformation in processing Good weldability Good anodizing status Good resistance to corrosion smelt | Mechanical construction Prototype mould Blown moulds Food industry Special machines Precision Mechanics |
| 2017 A | | | | | | | | | | | |
|   | | AlCu4MgSi(A) | A-U4G ALL : 3.1325 DIN : AlCuMg1 | T451 T4 According to thickness | 100 180 | 426 375 | 292 248 | 14.1 8.4 | 105 | Good processibility | Mechanical construction |
| 2024 | | | | | | | | | | | |
|  | | AlCu4Mg1 | NF02-004 : A-U4G1 AFNOR : 2024 ASTM : 2024 ISO CEN : AlCu4Mg1 ALL : 3.1355 DIN : AlCuMg2 | T351 | 6-10 10-25 25-40 40-60 60-80 80-100 100-120 | 450 430/435 425/430 425/430 425 420/425 380 | >=325 >=325 >=325 >=325 >=325 >=325 >=300 | 12 12 10 8 7 7 7 | 105/125 | Good mechanical properties Good machinability Good hard anodiability Acceptable protection anodisability Good electron-beam weldability Good resistance spot weldability Acceptable brazing & soldering Acceptable cold formability Low corrosion resistance | Machining Engineering Mechanical engineering Aircraft industry |
| 6082 | | | | | | | | | | | |
|  | | AlSi1MgMn | NF02-004 : A-SGM0.7 AFNOR : A-SGM0.7 ASTM : 6082 ISO CEN : AlSi1MgMn ALL : 3.2315 DIN : AlZnMgCu1.5 | T6 T651 | | 260/310 | 220/260 | 8 | 95 | Hardenable alloy Good mechanical properties Very good shape stability in machining Great corrosion resistance Very good weldability Very good ductivity Very good ability to cold transforming Very good polishing ability Great ability to anodic oxydation Good electrical conductivity | Machining Engineering Aeronautical industry Military industry Transport industry Nuclear energy industry Naval architecture Structures (frameworks & pylons) Profiles Scaffolds Bridges |
| 7075 | | | | | | | | | | | |
|  | | AlZn5.5MgCu | A-Z5GU ALL : 3.4365 DIN : AlZnMgCu1.5 | T651 T6 According to thickness | 100 180 | 533 492 | 462 426 | 8.5 7.3 | 150 | Top quality mechanical characteristics | Cutting tool shoes Preproduction moulds Blown moulds Food industry Special machines Mechanical construction |

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|--|----------------|--|---------|------|---------|---------|---|---------|---|--|
|  | AlZn5.5MgCu(B) | AFNOR : 7175 ASTM : 7175 ISOCEN : AlZn5.5MgCu (B) | T7351 | 6-12 | 470/480 | 390/395 | 7 | 140/160 | Good mechanical properties Good balance Resistance/ Tenacity/ Fatigue Average anodisability Acceptable for resistance weldability Coldforming not recommended on a hardened state Resistance to stress corrosion for thickness under 100mm (beyond 100mm at request) | Machining Engineering Mechanical engineering Aircraft industry |
| | 12-25 | 470/480 | 390/395 | 7 | | | | | | |
| | 25-38 | 460/470 | 390/395 | 6 | | | | | | |
| | 38-40 | 455/470 | 380/390 | 6 | | | | | | |
| | 40-51 | 450/460 | 360/380 | 6 | | | | | | |
| | 51-60 | 450/460 | 360/370 | 6 | | | | | | |
| | 60-63 | 435/450 | 350/360 | 6 | | | | | | |
| | 63-76 | 435/440 | 340/350 | 6 | | | | | | |
| | 76-80 | 425/440 | 340/350 | 6 | | | | | | |
| | 80-89 | 420/425 | 340 | 6 | | | | | | |
| 89-100 | 420 | 340 | 6 | | | | | | | |

COMPARISON OF PROPERTIES OF THE DIFFERENT ALLOYS

