



On the following pages we give the composition and mechanical properties of the alloys in which are fabricated the shapes listed on the preceding pages. It is not claimed that all forms are available from stock in all alloys - indeed some sizes cannot be produced at all in certain alloys.

We hope the following notes on the nomenclature used will be useful and constructive.

Alloy and Temper Designation System for Wrought Aluminium

Wrought aluminium and its alloy are specified in a series of British Standards and are classified by chemical composition in an internationally agreed four-digit system. The first of the four digits in the designation indicates the 'alloy group' according to the major alloying elements, as follows:

1xxx	Aluminium of 99.00 per cent minimum purity and higher.
2xxx	Copper.
3xxx	Manganese.
4xxx	Silicon.
5xxx	Magnesium.
6xxx	Magnesium and silicon.
7xxx	Zinc.
8xxx	Other element.
9xxx	Unused series.

1xxx group

In the 1xxx group, the last two figures indicate the minimum aluminium percentage. These figures are the same as the two figures to the right of the decimal point in the minimum aluminium percentage, when it is expressed to the nearest 0,01%. The second figure indicates modifications in impurity limits or alloying elements. If the second figure in the designation is zero, it indicates unalloyed aluminium having natural impurity limits; numerals 1 to 9, which are assigned consecutively as needed, indicate special control of one or more individual impurities or alloying elements.

2xxx to 8xxx groups

In the alloy groups 2xxx to 8xxx inclusive, the last two figures have no special significance but serve only to identify the different aluminium alloys in the group. The second figure indicates alloy modifications. If the second figure in the designation is zero, it indicates the original alloy; numerals 1 to 9 inclusive, which are assigned consecutively, indicate alloy modifications.

National variations

National variations are identified by a serial letter following the four figures. The serial letters are assigned in alphabetical sequence starting with A for the first national variation registered, but omitting I, O and Q.

Temper:

Subdivisions of T (thermally treated to produce tempers other than F, O or H) temper designations

First digit after T

The first digit following the letter T is used to identify the specific sequences of basic treatments.

T1	cooled from an elevated temperature shaping process and naturally aged
T2	cooled from an elevated temperature shaping process, cold worked, and naturally aged
T3	solution heat-treated, worked and naturally aged
T4	solution heat-treated and naturally aged
T5	cooled from an elevated temperature shaping process and then artificially aged
T6	solution heat-treated and then artificially aged

Subdivisions of H (strain-hardened) temper designations

First digit after H

The first digit following the letter H indicates the specific combination of basic operations

Second digit after H

The second digit following the letter H indicates the final degree of strain-hardening, as identified by the minimum value of the ultimate tensile strength.

Symbol

Symbol	Description
F	As manufactured
O	Annealed, soft
H12, H22, H32	Quarter-hard
H14, H24, H34	Half-hard
H16, H26, H36	Three-quarters hard
H18, H28, H38	Fully-hard (hardest commercially practicable temper)

- H1x Strain-hardened only
- H2x Strain-hardened and partially annealed
- H3x Strain-hardened and stabilized