

6. *Surface conditions:* The forged billets as supplied will be cleaned and pickled in 50 per cent nitric acid to remove surface scale and oxide. Seams, slivers, and laps will be removed by surface conditioning. Inspection will be carried out prior to shipment to ensure that there will be no excessive flow lines, transverse cracks, side crevices, or split ends having a visible depth of greater than 0.5 cm. The metal as supplied will be suitable for rolling or other fabrication.

7. *Overall danger coefficient*¹: For any billet: will not exceed 0.25 per cent;
Average of all billets: will not exceed 0.20 per cent.

8. *Chemical analysis:* (Impurities in ppm.)

	Maximum guaranteed for any ingot or billet	Minimum guaranteed for any ingot or billet	Average of all ingots or billets
Aluminium	20	10	15
Boron	0.2	0.1	0.15
Cadmium	0.1	less than 0.1	less than 0.1
Carbon	400	100	} according to specific requirements
Chromium	20	10	
Cobalt	1.0	less than 1.0	less than 1.0
Iron	100	65	80
Nickel	50	25	35
Nitrogen	40	20	30
Silicon	} Total	30	40
SiO ₂			
Hydrogen	10	5.0	8.0
Magnesium	30	15	20
Manganese	5.0	2.0	3.0

¹ The overall danger coefficient is expressed as a percentage and defined as the sum for all impurities of:

$$\frac{\text{Absorption cross section per atom of impurity}}{\text{Atomic weight of impurity}} \times 10^{-4} \times X \text{ ppm}$$

$$\frac{\text{Absorption cross section per atom of uranium}}{\text{Atomic weight of uranium}}$$

where X represents the parts per million (ppm) of the impurity.