



NATIONAL ALUMINIUM COMPANY LIMITED

ALUMINIUM ROLLED PRODUCTS

STANDARD CHEQUERED SHEET		
ALLOY & PRODUCT CODE	AA1050 – RQ10 AA1100 – RQ11 AA1200 – RQ12 AA3003 – RQ03 AA3105 – RQ31 AA8011 – RQ80	
THICKNESS	0.3mm to 3.00mm	
WIDTH	700-1400 mm	
LENGTH	1000mm to 4000mm	
TEMPER	H12, H14, H16, H18.	
TOLERANCES	Thickness	0.3mm to 0.99mm : +/- 6% 1.0mm to 1.63mm : +/- 0.10mm 1.64mm to 2.50mm : +/- 0.12mm 2.51 mm to 3.00mm: +/- 5%
	Width	Width \leq 1000 mm : +/- 3mm Width \geq 1001 mm : +/- 4mm
	Length	Length \leq 1000 mm : +/- 3mm Length 1001-2000 mm : +/- 4mm Length 2001-3000 mm : +/- 5mm Length \geq 3001 mm : +/- 6mm
	Diagonal Tolerance	Length \leq 1000 mm : \leq 6 mm Length 1000-2000 mm : \leq 8 mm Length 2000-3000 mm : \leq 10 mm Length \geq 3000 mm : \leq 12 mm
STACK WEIGHT	2 MT Max.	
STACK HEIGHT	400mm (Max.) Plus 150mm Pallet	
BEND TEST	It will be carried out as per IS: 737 clause no.7.2	
There may be some residual oil or stain on the sheet surface, unless specially requested.		

Packing: Sea worthy strong packing suitable for forklift handling

Alloys of other Grades and closer tolerances are subject to enquiry

Refer Table-1 for Mechanical properties against Temper designation, and Table-2 for Chemical Composition of Alloys



Table 1 - Mechanical properties against Temper designation

ALLOY	TEMPER	UTS (Mpa)	% ELONGATION (MIN) ON 50 mm GAUGE LENGTH			
			0.12- 0.32mm	0.33-0.63mm	0.64-1.20mm	1.21-3.00mm
AA1050	O	55 – 95	15	18	23	25
	H12	75-110	-	6	7	12
	H14	85-120	1	2	6	10
	H16	95-130	1	2	4	5
	H18	110 min	1	2	3	4
AA1100	O	75-105	15	17	22	30
	H12	95-130	-	3	5	8
	H14	110-145	1	2	3	5
	H16	130-165	1	2	3	4
	H18	150 min	1	1	2	4
AA1200	O	70-110	15	17	22	30
	H12	90-130	-	3	5	8
	H14	105-140	1	2	3	5
	H16	125-150	1	2	3	4
	H18	140 min	1	2	2	4
AA1235	O	65-95	15	17	22	30
	H12	80-115	-	3	5	8
	H14	88-127	1	2	3	5
	H16	118-147	1	2	3	4
	H18	138 min	1	2	2	4
AA8011	O	85-120	14	20	22	25
	H12	105-140	3	4	6	9
	H14	125-160	1	2	3	5
	H16	150-180	1	2	3	4
	H18	175 min	1	1	2	4
AA3003	O	95-130	14	20	22	25
	H12	120-160	3	4	6	9
	H14	140-180	1	2	3	5
	H16	165-205	1	2	3	4
	H18	185 min	1	1	2	4
AA3105	O	95-145	-	16	19	20
	H12	130-180	-	1	2	3
	H14	150-200	-	1	2	2
	H16	170-220	-	1	1	2
	H18	190 min	-	1	1	2
AA5005	O	105-145	12	16	19	21
	H12	125-165	2	4	6	9
	H14	145-185	1	2	2	3
	H16	165-205	1	1	2	3
	H18	185 min	-	-	-	-
AA5052	O	170-215	13	15	17	19
	H12	215-265	-	4	5	7
	H14	235-285	3	3	4	6
	H16	255-305	2	3	4	4
	H18	270 min	2	3	4	4

NOTE : For H22 , H24 , H26,H28 temper , UTS will be same as UTS of H 12, H14,H16 & H18 temper but % Elongation shall be slightly higher than the values indicated against H1x tempers.

Table 2 - CHEMICAL COMPOSITION OF ALLOYS

SL .NO	ALLOY	SPECIFICATIONS											
		% Si	% Fe	% Cu	% Mn	% Mg	% Cr	% Zn	% Ti	% V	% Other Impurities Each	% Other Impurities Total	% Aluminum
1	AA3003	0.60 max	0.70 max	0.05 to 0.20	1.00 to 1.50	-	-	0.10 max	-	-	0.05 max	0.15 max	-
2	AA5005	0.30 max	0.45 max	0.05 max	0.15 max	0.70 to 1.10	0.10 max	0.20 max	-	-	0.05 max	0.15 max	-
3	AA1050	0.25 max	0.40 max	0.05 max	0.05 max	0.05 max	-	0.05 max	0.03 max	0.05 max	0.03 max	-	99.5 0 min
4	AA1100	0.95 (Si + Fe) max		0.05 to 0.20	0.05 max	-	-	0.10 max	-	-	0.05 max	0.15 max	99.0 0 min
5	AA1200	1.00 (Si + Fe) max		0.05 max	0.05 max	-	-	0.10 max	0.05 max	-	0.05 max	0.15 max	99.0 0 min
6	AA3105	0.60 max	0.70 max	0.30 max	0.30 to 0.80	0.20 to 0.80	0.20 max	0.40 max	0.10 max	-	0.05 max	0.15 max	-
7	AA1235	0.65 (Si + Fe) max		0.05 max	0.05 max	0.05 max	-	0.10 max	0.06 max	0.05 max	0.03 max	-	99.3 5 min
8	AA5052	0.25 max	0.40 max	0.10 max	0.10 max	2.20 to 2.80	0.15 to 0.35	0.05 max	-	-	0.05 max	0.15 max	-
9	AA8011	0.50 to 0.90	0.60 to 1.00	0.10 max	0.20 max	0.05 max	0.05 max	0.10 max	0.08 max	-	0.05 max	0.15 max	-