

Technical Data Sheet
Hot Rolled Carbon and Low Alloy Steel bars
Grade A1 (A240)

Size: 8-32 mm

Delivery Standard: INSO 3132

Shape:



1-Dimensional Properties

Nominal Diameter	Nominal Cross Area	1m bar weighth	12m bar weighth
d	A _n (mm ²)	(kg/m)	w (kg)
8	50.3	0.36-0.43	4.36-5.12
10	78.5	0.57-0.67	6.80-7.98
12	113	0.83-0.94	10.02-11.30
14	154	1.14-1.28	13.65-15.39
16	201	1.50-1.66	18.01-19.91
18	254	1.90-2.10	22.80-25.20
20	314	2.35-2.59	28.16-31.12
22	380	2.83-3.13	33.97-37.55
25	491	3.70-4.00	44.35-48.05
28	616	4.64-5.02	55.64-60.28
32	804	6.06-6.56	72.69-78.75

2-Chemical Analysis

Grade	Standard	C	Si	Mn	P (max)	S (max)
A1	INSO 3132	0.22	0.55	0.75	0.05	0.05

3-Mechanical Properties

		Yield Strength	Tensile Strength	Elongation (%)		
Grade	Symbol	ReH, N/mm ²	R _m , N/mm ²	A ₅	A ₁₀	Agt
A1	A240	240	360	25	18	-

Technical Data Sheet
Hot Rolled Carbon and Low Alloy Steel bars
Grade A2 (A340)

Size: 8-32 mm

Delivery Standard: INSO 3132, GOST 5781

Shape:



1-Dimensional Properties

Nominal Diameter	Nominal Cross Area	1m bar weighth	12m bar weighth	Transverse rib (mm)		Longitudinal rib (mm)		Rib spacing
d	$A_n(\text{mm}^2)$	(kg/m)	w (kg)	b_1	h_1	b_2	h_2	c (mm)
8	50.3	0.367-0.423	4.408-5.072	0.8-1.6	0.52	1	1.2	4.8-6.6
10	78.5	0.585-0.647	7.022-7.762	1.0-2.0	0.65	1.3	1.5	5.5-7.5
12	113	0.844-0.932	10.123-11.189	1.2-2.4	0.78	1.5	1.8	6.1-8.3

2-Chemical Analysis

Grade	Standard	C	Si	Mn	P (max)	S (max)
A2	INSO 3132	≤ 0.32	≤ 0.6	≤ 1.3	0.045	0.045

(All are maximum values)

3-Mechanical Properties

		Yield Strength	Tensile Strength	Elongation (%)		
Grade	Symbol	$R_{eH}, \text{N/mm}^2$	$R_m, \text{N/mm}^2$	A_5	A_{10}	A_{gt}
A2	A340	340	500	18	10	-

(All are minimum values)