S700MC

HIGH-STRENGTH STEEL

STANDARD	EN10149-2
IDENTIFICATION NUMBER	1.8974
CLASSIFICATION	Special Steel
TYPE	Alloyed Steel
ROLLING STATE	AR - Rolling blank
BRIEF DESCRIPTION	High-strength low-alloyed steel for cold forming. Excellent weldability properties Excellent load-bearing capacity.
APPLICATIONS	Telescopic arms for mobile cranes, lifting crane arms, struts and frames for industrial vehicles, beds and sides for dump trucks, earth-moving and agricultural machinery.

STANDARD COIL STOCK RANGE

S700MC	1000	1250	1500	2000
2	•	•		
2.5		•		
3	•	•	•	
4		•	•	
5		•	•	•
6		•	•	•
7			•	•
8		•	•	•
10			•	•
12			•	•
15			•	•
20			•	•

CHEMICAL COMPOSITION

Regulatory standard

C (%)	Si (%)	Mn (%)	P (%)	S (%)	Al (%)	Nb (%)	Ti (%)	V (%)	Mo (%)	Cu (%)
≤ 0.120	≤ 0.60	≤ 2.10	≤ 0.025	≤ 0.015	≥ 0.015	≤ 0.090	≤ 0.220	≤ 0.200	≤ 0.50	

Cr (%)	Ni (%)	N (%)	B (%)	Nb+Ti+V (%)	Cr+Mo+Ni (%)	Ni+Cr+Cu+Mo (%)	C.E.V. (%)
			≤ 0.0050	*			

** = (Nb + Ti + V) ≤ 0.22 (%)*
C.E.V. (%) = C+(Mn/6)+[(Cr+Mo+V)/5]+[(Ni+Cu)/15]

MECHANICAL PROPERTIES

According to UNI EN 10149

Mechanical characteristics	Direction	Thicknesses	Values
R_e (MPa)	L	< 8	≥ 700
		> 8	≥ 680
R_m (MPa)	L		750-950
A_{80} (%)	L	< 3	≥ 10
A_5 (%)	L	≥ 3	≥ 12
Bend Test 180°	T		≥ 2 t
KV 20°C (J)			
KV 0°C (J)			
KV -20°C (J)	L		40*
KV -40°C (J)	L		27*
KV -50°C (J)			

** = Standard option*
t = thickness in mm of the test tube for the bend test
L = Tensile testing carried out on longitudinal test pieces
T = Bend tests carried out on cross-cut test pieces

TOLERANCES

Tolerances on the dimensions and on the shape	UNI EN 10051
Surface condition	UNI EN 10163-2

CERTIFICATIONS

EN10204-3.1

SIDASTICO S.p.A. Unipersonale Via Astico, 44 | 36030 Fara Vicentino (VI) - IT T. +39 0445 869500 info@sidastico.com www.sidastico.com