

S235JR TEARDROP

TEARDROP STEEL

STANDARD
IDENTIFICATION NUMBER
CLASSIFICATION
TYPE
ROLLING STATE
BRIEF DESCRIPTION
APPLICATIONS
STANDARD COIL
STOCK RANGE

EN 10025-2

1.0038

-

Unalloyed Steel

AR - Rolling blank

Non-alloy structural steel with high-grip teardrop patterned surface.

Industrial flooring, walkways, ramps, vehicle floors, platforms and metal structures.

S235JR Teardrop	1500	2000
3 + 2	•	
4 + 2	•	
5 + 2	•	•
6 + 2	•	
8 + 2	•	
10 + 2	•	•
12 + 2	•	

CHEMICAL COMPOSITION

Regulatory standard

C (%)	Si (%)	Mn (%)	P (%)	S (%)	Al (%)	Nb (%)	Ti (%)	V (%)	Mo (%)	Cu (%)
≤ 0.17		≤ 1.40	≤ 0.035	≤ 0.035						≤ 0.55

Cr (%)	Ni (%)	N (%)	B (%)	Nb+Ti+V (%)	Cr+Mo+Ni (%)	Ni+Cr+Cu+Mo (%)	C.E.V. (%)
		≤ 0.012					≤ 0.35*

* = for thicknesses in mm ≤ 30

C.E.V. (%) = $C + (Mn/6) + [(Cr+Mo+V)/5] + [(Ni+Cu)/15]$

MECHANICAL PROPERTIES

According to UNI EN 10025

Mechanical characteristics	Direction	Thicknesses	Values
R _e (MPa)	T	≤ 16 > 16 ≤ 40	≥ 235 ≥ 225
R _m (MPa)	T	< 3 > 16 ≤ 100	360-510 360-510
A ₈₀ (%)	T	≤ 1 > 1 ≤ 1.5 > 1.5 ≤ 2 > 2 ≤ 2.5 > 2.5 < 3	≤ 1 > 1 ≤ 1.5 > 1.5 ≤ 2 > 2 ≤ 2.5 > 2.5 < 3
		≤ 1 > 1 ≤ 1.5 > 1.5 ≤ 2 > 2 ≤ 2.5 > 2.5 < 3	17 18 19 20 21
	L	≤ 1 > 1 ≤ 1.5 > 1.5 ≤ 2 > 2 ≤ 2.5 > 2.5 < 3	17 18 19 20 21
		≤ 1 > 1 ≤ 1.5 > 1.5 ≤ 2 > 2 ≤ 2.5 > 2.5 < 3	17 18 19 20 21
		≤ 1 > 1 ≤ 1.5 > 1.5 ≤ 2 > 2 ≤ 2.5 > 2.5 < 3	17 18 19 20 21
	T	≥ 3 ≤ 40 ≥ 3 ≤ 40	24 26
		≥ 3 ≤ 40 ≥ 3 ≤ 40	24 26
A ₅ (%)	T	≥ 3 ≤ 40	24
Bend Test 180°	L	≥ 3 ≤ 40	26
KV 20°C (J)	T	≤ 150	≥ 27*
KV 0°C (J)			
KV -20°C (J)			
KV -40°C (J)			
KV -50°C (J)			

* = Standard option

t = thickness in mm of the test piece 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
Surface condition

UNI EN 10051
UNI EN 10163-2

CERTIFICATIONS

EN10204-3.1

CE / Declaration of Performance

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