

SIQUAL[™] 1231

HIGH CARBON STEEL

SIQUAL 1231 is a high carbon steel used for springs, spring parts or as a constructional steel for medium-weight machine parts.

SPECIFICATIONS

SIQUAL 1231 is designated as C67S according to EN 10027-1 and as W.Nr. 1.1231, and conforms to the following standard:

- EN 10132-4 (02/2000 +AC 12/2002) - Cold rolled narrow steel strip for heat-treatment – Technical delivery conditions – Part 4: Spring steels and other applications

CHEMICAL COMPOSITION

	C	Mn	Si	P	S	Cr	Ni	Mo
Min. in %	0.70	0.60	0.15	-	-	-	-	-
Max. in %	0.80	0.90	0.35	0.025	0.025	0.40	0.40	0.10

MECHANICAL PROPERTIES

Mechanical properties of hot-rolled strip and quarto plates can be given as informative values.

Delivery condition	R _{eL} (R _{p0.2}) [MPa]	R _m [MPa]	A ₈₀ [%]	HV
Annealed (+A) /spheroidization annealed (+A) + temper rolled (+LC)	max. 510	max. 640	min. 16	max. 200
Cold-rolled (+CR)	-	max. 1140	-	max. 315

DIMENSIONS

	Hot-rolled strip	Hot-rolled sheets	Cold-rolled strip	Cold-rolled sheet	Hot-rolled quarto plates
Thickness [mm]	3–6	3–6	0.3–3	0.5–3	8–*
Width [mm]	100–1000	800–1000	30–1000	up to 1000	1000–2500
Length [mm]	-	2000–6000	-	2000–6000	up to 12000
Internal coil diameter [mm]	610	-	508	-	-

*Max. thickness shall be discussed at the time of inquiry.

TOLERANCES ON DIMENSIONS

- Hot-rolled quarto plates: EN 10029
- Hot-rolled strips/sheets: EN 10051
- Cold-rolled strips/sheets: EN 10131 or EN 10140

SURFACE CONDITION

According to EN 10163-2 or by special agreement.

DELIVERY CONDITION

Hot-rolled strip/sheet	Cold-rolled strip/sheet			Hot-rolled quarto plates	
annealed (+ shot-blasted)	spheroidization annealed + temper rolled	cold-rolled to 600–900 MPa	cold-rolled to 800–950 MPa	cold-rolled to 900–1050 MPa	annealed (+ shot-blasted)

INSPECTION DOCUMENTS

The type of document shall be agreed upon at the time of enquiry and order. A test certificate according to EN 10204/3.1 is issued mandatorily.

The information and data in this product data sheet are intended for informative purpose only and may be revised at any time without notice. Presented typical properties of the materials are described only to help readers make their own evaluations and decisions. They are not guaranteed.