

SIQUAL[™] 7131

ALLOYED CARBON STEEL

SIQUAL 7131 is an alloyed carbon steel intended for case hardening. It is used in high stressed components.

SPECIFICATIONS

SIQUAL 7131 is designated as 16MnCr5 according to EN 10027-1 and as W.Nr. 1.7131 and conforms to the following standards:

- EN ISO 683-3 (formerly EN 10084): Heat treatable steels, alloy steels and free-cutting steels – Part 3: Case-hardening steels
- EN 10132-2: Cold rolled narrow steel strip for heat treatment – Technical delivery conditions – Part 2: Case hardening steels.

CHEMICAL COMPOSITION

	C	Mn	Si	P	S	Cr	Cu
Min. in %	0.14	1	0.15	-	-	0.80	-
Max. in %	0.19	1.30	0.40	0.025	0.035	1.10	0.40

MECHANICAL PROPERTIES

According to EN ISO 683-3:2019

Delivery condition	HBW
Soft annealed (+A)	max. 207
Normalized (+N)	138–187

Mechanical properties in delivery conditions other than soft annealed are given as informative values.

According to EN 10132-2:2000 – for thicknesses 0.30–3 mm

Delivery condition	R _{p0.2} [MPa]	R _m [MPa]	A ₈₀ [%]	HV
Annealed (+A) / Annealed (+A) + Temper rolled (+LC)	max. 420	max. 550	min. 21	max. 170

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		
as-rolled (+ shot-blasted)	annealed (+ shot-blasted)	spheroidization annealed + temper rolled	as-rolled (+ shot-blasted)	annealed (+ shot-blasted + painted)	normalized (+ 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.