

Hot rolled round steel bars

TK28A

Steel:	TK28A	Diameter:	20 to 80 mm
Standard:	-		
Section:	Round	Tolerance:	on diameter according to DIN 1013
Application:	drop forgings	Straightness tolerance:	4 mm/m

Chemical composition: (Product Analysis Tolerances according to DIN 17115)

C	Si	Mn	P	S	Al	Cu	N
0.26 ÷ 0.30	0.25 ÷ 0.35	1.25 ÷ 1.50	0.025 max	0.025 max	0.025÷0.050	0.25 max	0.012 max
Cr 0.40 ÷ 0.60	Ni 0.40 ÷ 0.50	Ti 0.03 ÷ 0.06	B 0.001÷0.004				

All necessary precautions have to be taken to avoid that no elements from scrap iron or other materials will be added during the production, which will exert an influence on the hardenability, the mechanical properties and the usability.

Design/Surface: hot rolled, untreated , able to cold shearing ; max. 255HB.

Production: Subcontractor or production dislocation only on request at the customer.

Mechanical Properties

(on hardened and tempered specimen ; 880°C oil - 400°C air; sample according to EN 10083-1):

Re (N/mm ²) 1000 + 1220	Rm (N/mm ²) 1330 max.	A%	Z% ≥55

Bar dimensions and weight:

Length 6m	Weight Bundling to 2 ÷ 3 t

Bundling identification: tag indicating: manufacturer, steel code, diameter, heat number and weight.

Production: steel shall be produced by an electric process or by an oxygen blown process.

Surface defects: quality class C according to the technical conditions for delivery of steel EN10221 and schedule 1.

Surface decarburization: point 8.4.4 and schedule 8 in DIN 17 115.

Grain size: steel shall have an austenitic grain size of 5 or finer when tested in accordance with ISO 643.

Nonmetallic inclusions: DIN 50 602-K4 max 15, inclusion size max 4, sporadic max 5.

Additional requirements: the steel shall be fully killed as defined in EN 10025.
Alloying element boron has to be hard cumulative alloyed.

Jominy test: min. 42 HRC at 15mm.

Certificate: according to EN 10204/3 .1.B including : steel code, diameter, heat number, chemical composition, mechanical properties, Jominy test , nonmetallic inclusions , grain size, surface defects.