

Technical Datasheet Unalloyed Steel C60 XTP[®]

General product description

The property profile of the unalloyed quenched and tempered steel C60 is optimized with maximum strength and toughness by the Xtreme Performance Technology. It is particularly suitable for components that require a combination of very high endurance and wear resistance under load.

memation	nal descrip	tion							
Steel numb	ber	E	J/DE	ASTM	JIS	AFNOR	ł	B.S.	SS
1.0601		<u></u>	60	1060	S60CM	<u>C60</u>		C60 60CS/HS	<u>C60</u>
Chemical	compositio	on (cast ana	lysis by mass	s-%)					
Variant	С	Si	Mn	Р	S	Cr	Мо	Ni	Cu
min.	0,57	0,10	0,60						
max.	0,65	0.40				0.40	0.10	0,40	0.00
ustomer-specific	esponds to C60 (1.0 chemical analyses	0,40 0601) according to DI are possible after co	nsultation.	<u>0,045</u> R _m [MPa]	<u>0,045</u>	<u>0,40</u>	<u>0,10</u> Z [%]	<u>,40</u> KV _{RT} [J]	<u>0,30</u> T ₂₇ [°C]
Customer-specific Mechanica Variant	esponds to C60 (1.0 chemical analyses	0601) according to DI are possible after co gical prope	N EN ISO 683-1. nsultation.						
Customer-specific Wechanica Variant high strengt Fypical mechanica $R_{02} = 0.2\%$ yield $L_0 = 0.2\%$ yield	esponds to C60 (1. chemical analyses al-technolog th, high tought al-technological pro strength, R _m = tens jation, Z = reductio ict strength accordi T ₂₇ = transition tem	biological properties: ile strength, A ₅ = elor of area, ng to DIN EN ISO 14	N EN ISO 683-1. nsultation. rties R _{p0,2} [MPa] 795 agation at fracture, 8-1, RT = room tempera y impact strength at 27	R_m [MPa] 900	A₅ [%]	A _g [%]	Z [%]	KV _{RT} [J]	T ₂₇ [°C]
Customer-specific Wechanica Variant high strengt Fypical mechanica $R_{02} = 0.2\%$ yield $L_0 = 0.2\%$ yield	esponds to C60 (1. chemical analyses al-technolog th, high tough al-technological pro strength, R _m = tens jation, Z = reductio fr ₂₇ = transition tem chanical propertie:	perties: in of area paint, As = elor in of areat, ing to DIN As = solor ing to DIN EN ISO 14 berature of the Charp	N EN ISO 683-1. nsultation. rties R _{p0,2} [MPa] 795 agation at fracture, 8-1, RT = room tempera y impact strength at 27	R_m [MPa] 900	A₅ [%]	A _g [%]	Z [%]	KV _{RT} [J]	T ₂₇ [°C]
Customer-specific Mechanica Variant high strengt App2 = 0.2% yield App = uniform elong V = Charpy impa r = temperature, 1 Customized mec	esponds to C60 (1. chemical analyses al-technolog al-technological pro strength, R _m = tens pation, Z = reductio ct strength accordi f ₂₇ = transition tem chanical propertie: uivalent	perties: in of area paint, As = elor in of areat, ing to DIN As = solor ing to DIN EN ISO 14 berature of the Charp	N EN ISO 683-1. nsultation. rties R _{p0,2} [MPa] 795 agation at fracture, 8-1, RT = room tempera y impact strength at 27	R_m [MPa] 900 ature, J.	A₅ [%]	A _g [%]	Z [%]	KV _{RT} [J]	T ₂₇ [°C]

CET = C +	Mn + Mo	Cr + Cu	Ni		Mn	Cr + Mo + V	Cu + Ni
	10 +	20	+ 40	CEV = C +	6 +	5 +	15



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Microstructure

The microstructure and the microscopic oxide purity grade according to DIN 50602 can be agreed upon. The grain size according to ASTM E 112 is \geq 10.

Surface properties

The surface condition complies with the requirements of SN EN 10277. The bars are crack-tested according to surface quality class 3 as standard. In the standard version, the ends of the bars up to 50 mm are not tested.

Miscellaneous

Other agreements according to order.

Condition of delivery

- Bar steel, XTP[®] treated
- Dimension range 18 40 mm
- Delivery length up to 8,000 mm
- Tolerance h11 and bar straightness 0.5 mm/m according to DIN EN 10278

Fabrication and other recommendations

Very good weldability, comparatively good machinability, thread rolling and cutting capability, very good cold formability, bendable.

Your benefits at a glance

Increased fatigue strength

- Higher load capacity and component safety
- Longer service life and lower maintenance costs
- Lightweight potential

Increased productivity

- Reduced hardness distortion and increased straightness
- Optimized diameter tolerances

Highest quality

- Single bar processing
- State-of-the-art process control
- Low decarburization and scale formation

For further info on our product range of tool steel, stainless steel and Engineering steel please visit www.swisssteelgroup.com

Discover our Green Steel portfolio on www.swissgreensteel.com

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