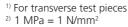
# WELDOX® 900

# Data sheet

### HIGH STRENGTH STRUCTURAL STEEL PLATE

WELDOX 900 is a general structural steel with a minimum yield strength of 900 MPa. WELDOX 900 meets the requirements on the corresponding steel grades and qualities according to EN 10025.

Applications	Load carrying structures having very high demands on low weight.														
Designation	WELDOX 900D with guaranteed impact toughness at -20° C (-4°F). Corresponds to S890Q WELDOX 900E with guaranteed impact toughness at -40° C (-40°F). Corresponds to S890QL WELDOX 900F with guaranteed impact toughness at -60° C (-76°F). Corresponds to S890QL1														
Chemical composition (ladle analysis)	C*	Si*	Mn*	Р	S	B*	Nb*	Cr*	V*	Cu	Ti*	Al* total	Mo*	Ni	N
	max %	max %	max %	max %	max %	max %	max %	max %	max %	max %	max %	min %	max %	max %	max %
	0,20 *In	0,50 tention	1,60 al alloyi	0,020 ng elem	0,010 ents. Th	•	•	•	0,06	0,10	0,04	0,018	0,70	0,10	0,01!
	Plate thickness			CEV CET Typical values % %						$CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$					
		nm mm mm		0,55 0, 0,55 0, 0,55 0,	36 36					CET =	= C + N/1	<u>1n+Mo</u> +	<u>Cr+Cu</u> +	· Ni 40	
Mechanical properties	Plate thickness mm			Yield strength <sup>1)</sup> R <sub>p 0,2</sub> , min MPa <sup>2)</sup>			Tensile strength <sup>1)</sup> R <sub>m</sub> MPa <sup>2)</sup>			Elongation <sup>1)</sup> A <sub>5</sub> min %					
	4,0 - 50,0 50,1- 80,0			900 830			940-1100 880-1100			12 12					





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Impact properties	Steel grade and quality	Charpy V	Impact energy for (J) tests on transverse <sup>1)</sup> Charpy V 10 x 10 tests specimens <sup>2)</sup> Test temperatures in °C							
	WELDOX 900 D WELDOX 900 E WELDOX 900 F	0 30 35 40	–20 27 30 35	-40 - 27 30	-60 - - - 27					
	¹)Unless otherwise ag	es less than 12 mm, so	ubsize Charpy V-s	ording to EN 100 specimens are us	25 option 30 will apply. ed. The specified minimum value					
Testing	Testing according to EN 10025.									
Delivery condition	Q Quenched and tempered as per EN 10025-6									
Dimensions	WELDOX 900 is supplied in plate thicknesses of 4-80 mm.									
	More detailed information on dimensions is provided in our brochure 42-General Product Information WELDOX, HARDOX and ARMOX-UK.									
Tolerances	- All plates are produced with AccuRollTech™ thickness precision guarantee.									
	AccuRollTech $^{\text{TM}}$ meets the requirements of EN 10 029, but offers more narrow tolerances.									
	- Tolerances on flatness according to Class N (Normal tolerances).									
	More detailed information is given in our brochure 42-General Product Information WELDOX, HARDOX and ARMOX-UK as well as at www.weldox.com.									
Surface condition	According to EN 10163-2, Class A, Subclass 1 (repair by welding is allowed).									
General technical delivery requirements	According to our brochure 42-General Product Information WELDOX, HARDOX and ARMOX-UK.									
Heat treatment and fabrication	WELDOX 900 has obtained its mechanical properties by a quenching and tempering process.									
and fabrication	WELDOX 900 is not suited for applications requiring hot working at temperatures above 550°C since the material may then lose its guaranteed properties.									
	For information concerning welding and fabrication, see our brochures on www.weldox.com or consult our Technical Customer Service.									
	Appropriate health and safety precautions must be taken when welding, cutting, grinding or otherwise working on the product. Grinding, especially of primer coated plates, may produce dust with high particle concentration.									



