

29.9.2022

486295

Customer's order number 023373		Manufacturer's order number 171935 1		
Customer/consignee Ovako Metals Oy Ab Tuotekatu 3 33840 Tampere		Buyer Ovako Metals Oy Ab Tuotekatu 3 33840 Tampere		
Customer reference number 023373-5130/96-720011				
Product Round bar As rolled Hot rolled, reeled		Steel grade Imatra 520/S355J2		
		Specification EN 10025-2/19/IS 2721.04.15		
Charge 48232	Abbreviation H5T	Diameter/dimensions 70,00 mm	Tolerance type N	Reduction ratio 29,82 :1

CAST ANALYSIS

	C	SI	MN	P	S	CR	NI	MO	
	%	%	%	%	%	%	%	%	
Min			1,00		0,020				
Result	0,15	0,26	1,17	0,011	0,033	0,19	0,14	0,04	
Max	0,20	0,50	1,50	0,025	0,040				
	V	TI	CU	ALS	AS	SN	B	CA	
	%	%	%	%	%	%	%	%	
Min	0,03							0,0020	
Result	0,04	0,0008	0,23	0,016	0,008	0,013	0,0002	0,0038	
Max	0,10								
	N	NB	CO	PB	W	SB	CEV		
	%	%	%	%	%	%	%		
Min									
Result	0,011	0,004	0,015	0,0000	0,006	0,001	0,43		
Max							0,47		

CHARPY V2/-20 °C EN ISO 148-1

	KV1	KV2	KV3	KV AVER
	J	J	J	J
Min				40
Result	128	118	136	127
Max				

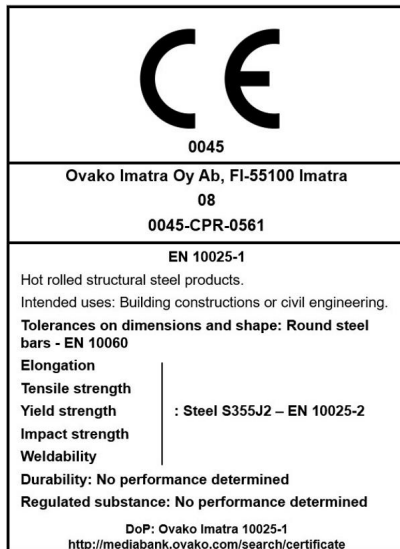
TENSILE TEST FROM 1/3 RADIUS EN ISO 6892-1

	Rp0.2	Rm	A 5	Z
	MPa	MPa	%	%
Min	380	520	21,0	
Result	406	565	24,8	68
Max		630		

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This order fulfills the requirements of IMATRA 520 including the improved machinability (M-treatment)

Steel production process: Electric Arc Furnace, Vacuum Degassing and Continuous Casting

Country of origin: Finland

The products supplied are in compliance with the requirements of the order

This certificate is issued electronically and is valid without a signature

Takala Esa  
Authorized Representative

All of Ovako's operations are carbon neutral beginning January 1, 2022.