

24.8.2022

484979

Customer's order number 022997		Manufacturer's order number 171494 1		
Customer/consignee Ovako Metals Oy Ab Tuotekatu 3 33840 Tampere		Buyer Ovako Metals Oy Ab Tuotekatu 3 33840 Tampere		
Customer reference number 022997-5130/96-722005				
Product Round bar Quenched and tempered Hot rolled, reeled		Steel grade MOC 210 M/25CRMO4		
		Specification EN ISO 683-2:2018		
Charge 47133	Abbreviation GTN	Diameter/dimensions 40,00 mm	Tolerance type N	Reduction ratio 91,32 :1

CAST ANALYSIS

	C	SI	MN	P	S	CR	NI	MO
	%	%	%	%	%	%	%	%
Min	0,22	0,10	0,60			0,90		0,15
Result	0,28	0,25	0,85	0,010	0,030	1,03	0,19	0,23
Max	0,29	0,40	0,90	0,025	0,035	1,20		0,30
	V	TI	CU	ALS	AS	SN	B	CA
	%	%	%	%	%	%	%	%
Min								
Result	0,01	0,0033	0,18	0,009	0,006	0,009	0,0001	0,0025
Max			0,40					
	N	NB	CO	PB	W	SB	ZN	
	%	%	%	%	%	%	%	
Min								
Result	0,012	0,005	0,013	0,0005	0,007	0,003	0,002	
Max								

CHARPY V2/+20 °C EN ISO 148-1

	KV1	KV2	KV3	KV AVER
	J	J	J	J
Min				50
Result	134	126	125	128
Max				

TENSILE TEST EN ISO 6892-1

	Rp0.2	Rm	A 5	Z
	MPa	MPa	%	%
Min	600	800	14,0	55
Result	717	852	16,0	63
Max		950		

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

Country of origin: Finland

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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.