



Customer^{A06}: DUFERCO S.A.
Customer's order no.^{A07}: SO4201009980
Order No. / Lot No.^{A08}: / 6451
Manufacturer's symbol^{A04}: ŽSK
Delivered conditions^{B04}: NR - normalizing rolling

INSPECTION CERTIFICATE No. 710655 6451 001

According to EN 10204 / 2004 : 3.1
Issued in electronic form

EN 10025-2:2019

Technical delivery conditions^{B02}: EN 10029:2010 cl.A cl.N

EN 10163-1-2:2004 cl.A/2

Issued : 30.10.2020

HOT ROLLED STEEL PLATES								CHEMICAL COMPOSITION																	
Heat No.	Steel grade	Item no.	Pieces	Dimensions (mm)			Weight (kg)	C 10 ⁻² %	Si 10 ⁻² %	Mn 10 ⁻² %	P 10 ⁻³ %	S 10 ⁻³ %	Al 10 ⁻³ %	N 10 ⁻³ %	Cr 10 ⁻² %	Cu 10 ⁻² %	Ni 10 ⁻² %	Ti 10 ⁻³ %	V 10 ⁻³ %	Nb 10 ⁻³ %	Mo 10 ⁻³ %	B 10 ⁻⁴ %	Ca 10 ⁻⁴ %	CEV 10 ⁻² %	
				Thickness	Width	Length																			
484853	S355J2+N	1	1	5.00	2000	8000	628	18	28	112	11	4	44	7	13	31	11	1	1	1	1				42
484853	"	2	6	5.00	2000	12000	5652	18	28	112	11	4	44	7	13	31	11	1	1	1	1				42
484783	"	4	1	6.00	2000	12000	1130	17	24	108	16	5	53	8	16	32	10	1	1	1	1				41
484852	"	4	3	6.00	2000	12000	3390	18	26	105	14	5	42	8	12	29	10	1	1	1	1				41
484854	S355J2+N	4	2	6.00	2000	12000	2260	17	27	108	11	4	43	8	14	33	10	1	1	1	1				41

Total :

MANUFACTURING PROCESS: EAF

PRODUCT IDENTIFICATION				TENSILE TEST					IMPACT TEST					SUPPLEMENTARY REQUIREMENTS						
Heat No.	Plate No.	Plate No.	Test No.	Location ²⁾	Direction ¹⁾	Reh N/mm ²	Rm N/mm ²	A %	Direction ¹⁾	Type	Individual values J			Mean value J	At °C	Width of tests piece	Direction ¹⁾			
											1	2	3							
484853	56178-01		56167	1	T	408	563	28.4												
"	56147-01	56171-01	56144	1	T	415	573	29.7												
"	56175-01	56177-02																		
"	56179-02	56180-01																		
484783	56260-01		56260	1	T	452	616	26.5	L	ISO-V	38	34	36	36	-20	10X6.0				
484852	56329-02	56379-02	56329	1	T	406	569	28.8	L	ISO-V	38	43	41	41	-20	10X6.0				
"	56387-01																			
484854	56348-02	56349-02	56347	1	T	406	557	29.6	L	ISO-V	94	88	89	90	-20	10X6.0				

Bend test^{C50}

Ultra-sonic test^{D02} :

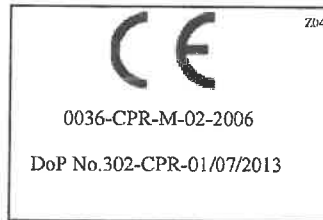
Visual and dimensional inspection : without objection
We hereby certify, that the delivered material complies with the terms of the order.^{Z01}

¹⁾Direction of the test piece : L - longitudinal; T - transverse; Z - in the thickness direction

²⁾Location of the test sample : 1 - top; 2 - bottom

Die-stamp marking :

Makstil's symbol / Grade / Heat No. / Plate No./CS mark



Q.D. 'MAKSTIL' A.D

Q.M.dip.eng I.BOGESKI^{A05}



RZ TECHNICAL CONTROL A.D. - SKOPJE

tech.manager dipl.Eng.E.Ugrinovska^{Z02}





A01

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INSPECTION CERTIFICATE No. 710655 6451 001

According to EN 10204 / 2004 : 3.1
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A02

A03

EN 10025-2:2019

Technical delivery conditions^{B02}: EN 10029:2010 cl.A cl.N

EN 10163-1-2:2004 cl.A/2

Issued : 30.10.2020

HOT ROLLED STEEL PLATES ^{B01}									CHEMICAL COMPOSITION															
Heat No.	Steel grade	Item no.	Pieces	Dimensions (mm)			Weight (kg)	C 10 ⁻² %	Si 10 ⁻² %	Mn 10 ⁻² %	P 10 ⁻³ %	S 10 ⁻³ %	Al 10 ⁻³ %	N 10 ⁻³ %	Cr 10 ⁻² %	Cu 10 ⁻² %	Ni 10 ⁻² %	Ti 10 ⁻³ %	V 10 ⁻³ %	Nb 10 ⁻³ %	Mo 10 ⁻³ %	B 10 ⁻⁴ %	Ca 10 ⁻⁴ %	CEV 10 ⁻² %
				Thickness ^{B09}	Width ^{B10}	Length ^{B11}																		
484854 ^{B07}	S355J2+N ^{B02}	4 ^{A07}	1 ^{B08}	6.00 ^{B09}	2000 ^{B10}	12000 ^{B11}	1130	17 ^{C71}	27 ^{C72}	108 ^{C73}	11 ^{C74}	4 ^{C75}	43 ^{C76}	8 ^{C77}	14 ^{C78}	33 ^{C79}	10 ^{C80}	1 ^{C81}	1 ^{C82}	1 ^{C83}	1 ^{C84}			41 ^{C93}
484855	"	4	7	6.00	2000	12000	7910	17	30	108	16	5	52	8	17	33	11	1	1	1	1			42

Total : 21

22100

MANUFACTURING PROCESS: EAF^{C70}

PRODUCT IDENTIFICATION				TENSILE TEST					IMPACT TEST					SUPPLEMENTARY REQUIREMENTS			
Heat No.	Plate No.	Plate No.	Test No.	Location ²⁾	Direction ¹⁾	Reh ² N/mm ²	Rm ² N/mm ²	A %	Direction ¹⁾	Type	Individual values			Mean value J	At °C	Width of tests piece	Direction ¹⁾
											1	2	3				
484854 ^{B07}	56350-01 ^{B07}		56347 ^{C90}	C01	C02	C11	C12	C13	C02	ISO-V ^{C40}	C42	C42	C42	C43	C03	C41	
484855	56374-01	56374-02	56327	1	T	406	557	29.6	L	ISO-V	94	88	89	90	-20	10X6.0	
"	56383-02	56388-02		1	T	421	583	27.8	L	ISO-V	74	63	70	69	-20	10X6.0	
"	56389-01	56391-02															
"	56393-02																

Bend test^{C51}

Ultra-sonic test^{D02}:

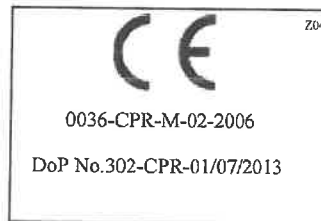
Visual and dimensional inspection : without objection
We hereby certify, that the delivered material complies with the terms of the order.^{Z01}

¹⁾Direction of the test piece : L - longitudinal; T - transverse; Z - in the thickness direction

²⁾Location of the test sample : 1 - top; 2 - bottom

Die-stamp marking :

Makstil's symbol / Grade / Heat No. / Plate No./CS mark



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