



GERDAU AÇOMINAS S.A.
ROD MG 443 KM 7 SN FAZENDA DO CADETE
OURO BRANCO MG
36420-000 BRAZIL

MILL TEST / QUALITY CERTIFICATE

CUSTOMER FAF PRODUTOS SIDERURGICOS S A	CUSTOMER ORDER FAF 06-07-2017	SALES ORDER 5348563-000008	DIMENSIONS 25,000mm x 2000mm x 12000mm	PAGE 1 / 1
PRODUCT Plate	EDGE TYPE Cut edge	DELIVERY CONDITION Normalizing Rolling		DATE 11.17.2017
SPECIFICATION EN 10025-2:2004 - S355J2+N			DOCUMENT NUMBER 0004885E17	

Gerdau S.A. certifies that the material herein described is in accordance with the applicable technical specifications. As mutual protection for customer and supplier, this certificate is considered as confidential and can not be transcribed or reproduced without the written authorization of Gerdau S.A.

PACKAGES	PLATE #	WEIGHT (MT)	HEAT	SAMPLE	PLATE #	WEIGHT (MT)	HEAT	SAMPLE	PLATE #	WEIGHT (MT)	HEAT	SAMPLE
	3706030901	4.710	28094030	28094030016	3706031101 (*)	4.710	28094029	28094029020	3706031202 (*)	4.710	28094030	28094030016
	3706030902	4.710	28094030	28094030016	3706031102 (*)	4.710	28094029	28094029019	3706176901 (*)	4.710	28094035	28094035030
	3706031001	4.710	28094030	28094030016				28094029020				28094035031
	3706031002	4.710	28094030	28094030016	3706031201	4.710	28094030	28094030014	3706176902 (*)	4.710	28094035	28094035030
	3706031101 (*)	4.710	28094029	28094029019				28094030016				28094035031

CHEMICAL COMPOSITION		C(%)	Mn(%)	Si(%)	P(%)	S(%)	Al T(%)	Cr(%)	Cu(%)	Ti(%)	Mo(%)	Nb(%)	Ni(%)	V(%)	B(%)	Ca(%)	N(%)
HEAT	28094029	0.16	1.47	0.24	0.018	0.006	0.040	0.01	0.02	0.016	0.00	0.034	0.01	0.045	0.0002	0.0000	0.0055
HEAT	28094030	0.16	1.49	0.24	0.016	0.007	0.033	0.01	0.01	0.015	0.01	0.036	0.01	0.044	0.0004	0.0000	0.0058
HEAT	28094035	0.15	1.43	0.20	0.016	0.007	0.024	0.01	0.02	0.014	0.01	0.037	0.01	0.045	0.0004	0.0000	0.0046

TENSILE TEST				CHARPY IMPACT TEST										
SAMPLE	DIRECTION	POSITION	YS/RE(MPa)	TS/RT(MPa)	YS/TS	ELONG/ALARG(%)	SAMPLE	DIRECTION	POSITION	TEMP(TEMP)(°C)	IND EN/EN IND(J)	IND EN/EN IND(J)	IND EN/EN IND(J)	AVG EN/EN MD(J)
28094029019	Transversal	1/4 Width / Ancho	409	547	0.75	28.0	28094029020	Longitudinal	1/4 Width / Ancho	-20	235	261	250	249
28094030014	Transversal	1/4 Width / Ancho	379	539	0.70	30.0	28094030014	Longitudinal	1/4 Width / Ancho	-20	60	64	79	68
28094030016	Transversal	1/4 Width / Ancho	396	551	0.72	25.0	28094030016	Longitudinal	1/4 Width / Ancho	-20	77	122	111	103
28094035030	Transversal	1/4 Width / Ancho	383	543	0.71	28.0	28094035031	Longitudinal	1/4 Width / Ancho	-20	312	265	323	300

TENSILE TEST GAUGE LENGTH/LONGITUD DE REFERENCIA: L0: 5,65 x (S0-%)
 CHARPY IMPACT TEST SPEC SIZE/DIM MUESTRA: 10X10mm - V2mm

ABBREVIATIONS		YS/RE	Yield Point	TS/RT	Tensile Strength	YS/TS	Elastic Ratio	ELONG/ALARG	Elongation	TEMP/TEMP	Temperature
(*)	Mother Plate	YS/RE	Yield Point	TS/RT	Tensile Strength	YS/TS	Elastic Ratio	ELONG/ALARG	Elongation	TEMP/TEMP	Temperature
IND EN/EN IND	Individual Energy	AVO EN/EN MD	Average Energy								

UT: 18.L.00267
 GR 255/4(44) ✓
ONIRAM, LDA
 DEP. QUALIDADE
 RECEPÇÃO

2018.01.18 DATA
 RUBRICA

REMARKS
 CEQ2 = C+Mn/8+(Cr+Mo+V)/5+(Ni+Cu)/15
 Product Type: Hot Rolled Structural Steel Products
 EC Certificate of Conformity N°0038/CPR/20060008/A
 Declaration of Performance: N° G003/16
 Harmonised Standard: EN 10025-1: 2004
 Essential Characteristics: Tensile / Yield / Impact Strengths and Weldability:
 S355J2, Durability, regulated substance - No Performance Determined
 Intended Uses: Building Construction or Civil Engineering
 Tolerance on Dimensions acc. to EN 10029 Tab 1 Cl B, Tab 3, Tab 4 Cl N - Type L
 Surface Quality according to EN 10163-2 Class B - Subclass 3.
 Ultrasonic testing according to EN 10160 Class S1E1.
 Mill Test Certificate according to EN 10204-3.1
 All radiation sources are verified and controlled.
 All scrap used at Gerdau Ouro Branco is internally generated.
 We certify that this material is free of contamination by radiation.

FAF - Produtos Siderurgicos, S.A.
 Departamento de Qualidade



QUALITY ASSURANCE Kj G KENJI CAMEY CREA 43236	SURVEYOR
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