



ACESITA S.A. ASSOCIADA À ARCELOR

Plant: Praca 1º de Maio, nº 9 - Centro - Timoteo - MG - 35180-018 - Brazil

Head Office: Av. João Pinheiro, nº 580 - Centro - Belo Horizonte - MG - 30130-180 - Brazil

QUALITY CERTIFICATE

Number: 62937
Invoice: E401481
Date: 15/06/2004
ACESITA Order: 9599093

Customer:
DUFERCO S.A
VIA BAGUTTI 9
CH-6900 - LUGANO
P.O.NR.: ORDEM 2

Part Number: ASTM A 36/A 36M

Steel grade: ACE P016N **Finish:** HOT ROLLED **Product:** COIL
Dimensions: 6,35 mm x 1220 mm
Marks:

Chemical composition

Heat nr.	C %	Mn %	Si %	P %	S %	Cr %	Ni %	Mo %	Al %						DI mm
402234I	0,168	0,71	0,080	0,015	0,005	0,08	0,02	0,007	0,0559						14,24
402679E	0,165	0,72	0,090	0,012	0,001	0,08	0,01	0,006	0,0564						14,10
402681A	0,164	0,70	0,070	0,015	0,004	0,09	0,03	0,007	0,0390						14,24

Results

Test/Variable	Unit	402234I01		402679E03		402681A02		402681A03		402681A04		402681A08	
		H	T	H	T	H	T	H	T	H	T	H	T
		Tensile Strength	MPA		500,00		498,00		486,00		486,00		486,00
Yield Strength 0.2 %	MPA		360,00		357,00		330,00		330,00		330,00		330,00
Elongation 2"	%		25,00		30,00		31,60		31,60		31,60		31,60
Grain Size			08/08		08/08		08/08		08/08		08/08		08/08
Hardness	HRB	083	083	081	081	077	077	077	077	077	077	077	077
Structure		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE	
Crown	mm		0,027		0,025		0,037		0,039		0,037		0,042
Wedge	mm		0,015		0,021		0,06		0,049		0,019		0,044
Std. Deviation	mm		0,02		0,01		0,01		0,02		0,02		0,01
Width	mm		1236,40		1231,80		1230,80		1234,50		1233,60		1234,90
Net Weight	MT		18,130		19,670		19,680		19,730		17,710		19,670
Gross Weight	MT		18,130		19,670		19,680		19,730		17,710		19,670

Heat & Lot Identification: Ok
Surface quality / dimensions: Ok

Remarks: ASTM A 36/A 36M.

Free from mercury contamination.
Certify that the results above are correct and in acc. with the specifications or accepted concession.
Quality management system certified ABS QE no. 30071 acc to AD2000 W2/W10; ISO 9001:2000.
Environmental management system certified ABS QE no. 65989 acc to ISO 14001.

Castro
Geovane Martins Castro
Qualified Inspector
ACESITA S.A.