



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: 62938
 Invoice: A6399 E401481
 Date: 15/06/2004
 ACESITA Order: 9599101

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: 7,92 mm x 1220 mm
Marks:

Chemical composition

Heat nr.	C %	Mn %	Si %	P %	S %	Cr %	Ni %	Mo %	Al %						DI mm
402658I	0,160	0,74	0,100	0,014	0,003	0,10	0,02	0,007	0,0503						15,03
402659G	0,160	0,76	0,100	0,012	0,003	0,08	0,02	0,008	0,0440						14,74

Results

Test/Variable	Unit	402658I03		402658I04		402658I09		402659G02		402659G03		402659G05	
		H	T	H	T	H	T	H	T	H	T	H	T
Tensile Strength	MPA		490,00		490,00		490,00		496,00		496,00		496,00
Yield Strength 0.2 %	MPA		347,00		347,00		347,00		335,00		335,00		335,00
Elongation 2"	%		31,00		31,00		31,00		27,40		27,40		27,40
Grain Size			07/08		07/08		07/08		07/08		07/08		07/08
Hardness	HRB	080	080	080	080	080	080	081	081	081	081	081	081
Structure		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE		FERRITE-PEARLITE	
Crown	mm	0,026		0,025		0,025		0,033		0,036		0,037	
Wedge	mm	0,01		0,015		0,033		0,034		0,032		0,054	
Std. Deviation	mm	0,02		0,01		0,02		0,02		0,02		0,02	
Width	mm	1238,50		1220,00		1239,70		1241,00		1240,10		1237,40	
Net Weight	MT	19,680		19,680		19,780		19,700		19,570		14,220	
Gross Weight	MT	19,680		19,680		19,780		19,700		19,570		14,220	

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.

Geovane
 Geovane Martins Castro
 Qualified Inspector
 ACESITA S.A.