



MILL TEST CERTIFICATE

Reinosa Plant

ISO 9001 - ISO/TS 16949



Product Made in Spain

CUSTOMER: AMODIL SUPPLIES LTD.	WORKS REFERENCE: 1830307
REFERENCE: SD0346	SALES ORDER: 286871-1
PRODUCT NR:	HEAT NUMBER: 900442
	MASTER REFERENCE: 209795
	ROLLED: 21.09.2015

Tensile test specimen direction (Longitudinal): Longitudinal
 Ts (515/690 MPA): 541 MPA ; Ys(1) (Rp(0,2%) >= 205 MPA): Rp(0,2%) 325 MPA
 Ys(2) ((1%) >= 235 MPA): (1%) 352 MPA ; El. ((5d) >= 45 %): (5d) 47,7 % ; Z (>= 50 %): 77 %
 Notch impact sample direction (Longitudinal): Longitudinal ; Notch Impact sample type (ISO V): ISO V
 Notch Impact test Temperature (20 °C): 20 °C ; K(1) (>= 100 J): 278 J ; K(2): 275 J ; K(3): 277 J
 Hardness (<= 215 HB): 157 HB

ADDITIONAL TESTS
 Structure: Austenite ; Standard (ASTM A262 - 01.07.2014) ; Standard (ASTM E112 2013 01.10.2013)
 Grain size: Austenitic 6 ; Standard (ISO 3651-2 - 1998.) ; Type / Method (Practice E)
 Intercrystalline Corrosion: ok

NON DESTRUCTIVE TESTS
 Internal defects standard (STAHL EISEN SEP1921 - 01.12.1984)
 Internal defects type/method (Test group 3 - Defect <= E/e)
 ULTRASONIC INSPECTION 100%; OK - SEP1921 G.3 - E/e ; CRACKS CONTROL 100%; OK
 ANTIMIXING TEST SPECTROSCOPY 100%; OK

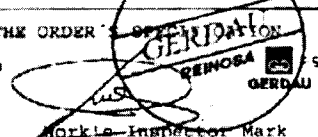
ADDITIONAL INFORMATION
 SOLUTION ANNEALED, (Hiperquenching) at 1095°C-IN WATER ; DIMENSIONAL CONTROL AS PER ORDER.
 F316/F316L S/ASTM-A182

Material manufactured through the Electric Arc Furnace and AOD.
 Steel not exposed to Mercury, or to any other metal alloy that is liquid, at ambient temperatures during processing or while in Gerdaul's possession.
 Steel is free from Uranium or any other harmful radioactive contamination.
 Steel products were not repaired by welding.
 100% anti mix test performed by spectrometry.

TECHNOLOGY & QUALITY CERTIFIES THAT THE PRODUCT FULL FILLS THE ORDER'S SPECIFICATION

APPROVED BY: GUILLERMO GUTIERREZ GOMEZ
 DATE: 20.10.2015
 REF.: 6001940330000

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SIGN: 
 REINOSA GERDAUL NH
 Workle-Inspector Mark

FLOW TECHNOLOGY LTD
 TEST CERTIFICATE
 VERIFIED TRUE
 COPY OF ORIGINAL