



TMK-ARTROM S.A.

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 J 28/9/1991; VAT No. RO 1510210/1992
 Subscribed and Paid Share Capital: 291.587.538,34 lei

INSPECTION CERTIFICATE - EN 10204: 2004 / 3.1

No : I 2627 Date: 13.04.2017	Sigla fabricii: Manufacturer's mark:	Comanda client nr.: 63 Customer Order No. : 63	PL: JS_003662
Specificatii/Specification: API5L:13/ PED 2014/68/EU+AD 2000W4/ASTM A106:15/ ASTM A53:12/ EN 10216-2:13/ ISO 3183:12		Dimensiune / Dimensions: 18 x 2 x 6 000+150/-0 mm Otel / Steel: Gr. B PSL1/ Gr.B/ P235GH TC1/P265GH TC1 / L245 PSL1	
Description: Cold drawn seamless steel pipes; marking by painting at one end: TMK-ARTROM, standard, dimension, steel grade, SMLS, heat no., lot, LENGTH(m), mill inspector no. 3 // standard, steel grade, 0.79 Kg/m, TEST PRESSURE 2500 PSI;			
Nr. Sarja / Heat No. : 46473			
Cantitatea livrata/ Quantity delivered	Bucati / Pcs. 284	Lungime/Length - m 1726.76	Greutate / Weight- Kg 1352

Compozitia chimica pe otel lichid / Ladle Chemical Analysis [%]

Heat no.	C	Mn	S	P	Si	Ni	Cr	Mo	Cu	Al	Nb	Ti	V	B
46473	0.13	0.57	0.002	0.008	0.25	0.07	0.04	0.01	0.21	0.023	0.001	0.001	0.002	.0003

Cr+Cu+Mo+Ni= 0.33 Nb+V=0.003 Nb+V+Ti=0.004

Compozitia chimica pe otel produs / Product Chemical Analyse (%)

Heat no.	C	Mn	S	P	Si	Ni	Cr	Mo	Cu	Al	Nb	Ti	V	B
46473	0.14	0.57	0.002	0.010	0.25	0.08	0.04	0.02	0.21	0.025	0.001	0.001	0.002	.0003
46473	0.14	0.56	0.002	0.010	0.25	0.08	0.04	0.02	0.22	0.024	0.002	0.001	0.002	.0003

Caracteristici mecanice / Mechanical Properties

INCERCAREA LA TRACTIUNE / TENSILE TEST (EN ISO 6892-1) - at room temperature-			Rp0.2 N/mm ²	Rt0.5 N/mm ²	Rm N/mm ²	A %
Tip epruveta / Test Specimen // Tronson / Full section			311	313	436	40
Dimensiune / Dimension (mm) : 18.00 x 2.00						
Sectiune / Section (mm ²) : 36						
Lungime / Length - (Lo) (mm) : 60						
Test largire dorn Drift expanding test (EN ISO 8493)	Test aplatizare Flattening test (EN ISO 8492)	Test Charpy - crestatura V Charpy V - Notch (EN ISO 148-1)	Test tractiune inel Ring tensile test (EN ISO 8496)			
OK	OK	-	-			
Hydraulic test pressure (ASTM A530): 2500 PSI for 5 sec: OK			Hardness HRB: 70-69-70-69			
Melting process: electric arc furnace, fully killed			Hardness HRC max 22 (acc to NACE MR01.75/ISO 15156)			
Heat treatment: normalized			NACE MR01.03/ISO 17495-1			

Inspectia vizuala si dimensionala: OK / Visual inspection and dimensional check : OK

The manufacturer of pipes is certified by LRQA in accordance with: ISO 9001:08 (certificate no. 6007159 issued by 2015-08-10, valid until 2018-08-10), ISO 14001:04 (certificate no.6007157 issued by 2015-08-16, valid until 2018-08-10), OHSAS 18001:07 (certificate no.6007158 issued by 2015-08-12, valid until 2018-08-10).

The material "not contain intentional additions of elements such as lead, selenium, or sulphur to improve machinability"

"TEVILE CERTIFICATE NU AU FOST REMANIMATE PRIN SUDURA "

"NO WELD REPAIR ON HEREBY CERTIFIED TUBES "

Sef serviciu CTC Laboratoare
QC & LABORATORIES CHIEF
 Dipl. Eng. Silviu Barbulescu

INSPECTOR CTC
MILL INSPECTOR
 Eng. Georgeta Racovita



Ausgestellt im Einvernehmen mit dem TÜV SÜD (02/98)
 Issued in agreement with TÜV SÜD (02/98)

The forgery of this certificate concludes to responsibility mentioned on Romanian Penal Code (art. 290-292).
 THIS IS FOR CERTIFY THAT THE MATERIAL HEREIN DESCRIBED HAS BEEN MANUFACTURED WITH THE ORDERED SPECIFICATION AND THAT INFORMATION IS CORRECT, THEY MEET THE SPECIFICATION'S REQUIREMENTS AND ARE RECORDS IN D OUR COMPANY DOCUMENTS.