

C277649
12 pcs

PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

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|---|---|---|
|  | <p>Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№9684/PO49596 DIN EN 10088-3-05, DIN EN 10272-08, DIN EN 10222-5-00; ASTM A182/A182M-10; ASME SA-182/SA-182M-10; ASTM A276-10; ASTM A314-08, ASTM A479/A479M-10; ASME SA-479/SA-479M-10; ASTM A484/A484M-10; AMS-QQ-S-763B-06 Cond.A; AMS 5648K-07; AMS 5653F-07; ASTM A193/A193M-10GR B8M,CL1; ASME SA-193/SA-193M-10 GR B8,CL 1; ASTM A320/A320M-08 GR B8M,CL 1; ASME SA-320/SA-320M-10 GR B8,CL1; NACE MR 0175-03; NACE MR 0103-10</p> | <p>INSPECTION CERTIFICATE EN10204/3.1 Nr.363163 PLANT ORDER № 8014909684</p> |
|  | <p>CUSTOMER DSS INTERNATIONAL SA Switzerland</p> <p>PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованы, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛАВКИ: Электродуговая печь+AKP Round 13.000in/330.20 mm L=10.230 ft/3.120m L=8.738 ft/2.665m Grade: 316/316L/1.4401/1.4404</p> | <p>QUANTITY: 1bund Q-4802 lb/2178 kg (number of pcs) 1bund Q-4136 lb/1876 kg</p> <p>Delivery condition solution annealed :1940⁰F(1060⁰C)water 30minutes термообработка:закалка в воду</p> |

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|---------------|-------|-------|-----------|-------|-----------|-------------|-------------|-----------|------|------|------|------|------|------|------|------|-------|-------|
| ANALYSIS, % | C | Si | Mn | P | S | Cr | Ni | Mo | Al | Cu | V | W | Ti | Co | Nb | N | Sn | B |
| REQUIRED | <.030 | <1,00 | 1.20-2.00 | <.040 | .015-.030 | 16.50-18.00 | 10.00-13.00 | 2.00-2.50 | <.10 | <.40 | <.10 | <.20 | <.15 | <.40 | <.20 | <.10 | | |
| CAST № A09131 | .020 | .43 | 1.30 | .037 | .025 | 17.06 | 10.15 | 2.08 | .07 | .27 | .05 | .06 | .005 | .13 | .011 | .030 | .0095 | .0022 |

DIN EN 10002-1, ASTM A370-09

| MECHANICAL PROPERTIES | Yield Strength, (N/mm ²) R0.2% R 1.0% | | Tensile Strength, Rm, (N/mm ²) | Elongation | | Reduction of area, Z % L | Brinell Hardness HB | Impact strength, KV, J | |
|-----------------------|--|-----|--|-------------------------|---------------------------------------|-----------------------------|---------------------|------------------------|----------|
| | L | Q | | A ₅ % L Q | In 2 inches (50mm) or 4D, min, % L | | | L | Q |
| REQUIRED | 205 | 240 | 515-690 | 45 35 | 40 | 50 | 140-217 | 100 | 60 |
| EFFECTIVE | 280 | 304 | 576 | 61 55 | 58 | 74 | 170 | 197 197 197 | 65 65 65 |

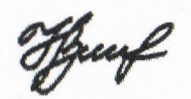
TECHNICAL REQUIREMENTS:
Macrostructure – GOOD
GRAIN SIZE : 5 to ASTM E 112-96(2004)
Nonmetallic inclusions ASTM E 45-05 (Method A)
A B C D
thin thick thin thick thin thick thin thick
2.5 2.0 2.0 2.0 0.0 0.0 1.0 1.0
ICC-ASTM A262-08 (practice E)-test: O.K.
Dimension/surface defects test, anti-mixing test – OK
We acknowledge that the delivered products conform to the requirements of the order/Подтверждаем, что поставленная продукция соответствует требованиям заказа
Ratio of reduction-6.1:1

Mechanical properties tested in state of delivery

US - testing yes Results: ASTM A388/A388M-FBH1/5"; EN 10228-4 type 1a; class 3:OK

Radiation free; mercury free. No Weld or Weld repair.

Date: 06.11.2020 Manager of quality assurance department
- V. Kapaieva Signed:
Zaporozhye
Melted and Produced in Ukraine.
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April 13/21

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