



C299061


PrJSC DNIPROSPETSSTAL, YUZHNOYE SHOSSE 81, 69008 ZAPOROZHYE, UKRAINE

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|  | Contract No.: 20002 TECHN.PROTOCOL № 390-11 SPEC.№2608/PO51243 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 | INSPECTION CERTIFICATE EN10204/3.1 Nr.370941 PLANT ORDER № 8014902608 |
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|  | CUSTOMER DSS INTERNATIONAL SA Switzerland | PRODUCT DESCRIPTION Bars and rods of corrosion-resistant (stainless) steel forged, peeled. Прутки из коррозионностойких (нержавеющих) сталей кованные, обточенные. STEEL MAKING PROCESS: EAF+AOD СПОСОБ ВЫПЛИВКИ: Электродуговая печь+АКР Round 15.000in/381.00 mm L=8.426ft/2.570m L=8.443 ft/2.575m Grade: 316/316L/1.4401/1.4404 | QUANTITY: 1bund Q-5291 lb/2400 kg (number of pcs) 1bund Q-5317 lb/2412 kg Delivery condition solution annealed :1940 ⁰ F(1060 ⁰ C)water 34minutes термообработка:закалка в воду |
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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 № A09969 | .024 | .44 | 1.37 | .040 | .027 | 16.79 | 10.25 | 2.06 | .074 | .22 | .06 | .05 | .005 | .10 | .01 | .029 | .0076 | .0023 |

| DIN EN 10002-1, ASTM A370-09 | | | | | | | | | | TECHNICAL REQUIREMENTS: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------------|-------|-----------------------------|---------------------|------------------------|-------------|---|--|--|--|--|--|--|--|--|------|-------|------|-------|------|-------|---|---|---|---|---|---|---|---|---|---|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|--|--|--|
| 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 | | Macrostructure: GOOD GRAIN SIZE : 5 to ASTM E 112-96(2004) Nonmetallic inclusions ASTM E 45-05 (Method A) <table border="1"> <tr> <th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>B</th><th>C</th><th>D</th> </tr> <tr> <td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td><td>thin</td><td>thick</td> </tr> <tr> <td>2.0</td><td>2.0</td><td>2.0</td><td>1.0</td><td>0.0</td><td>0.0</td><td>1.0</td><td>1.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> 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-6.4:1 | | | | | | | | | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D | thin | thick | thin | thick | thin | thick | thin | thick | thin | thick | thin | thick | thin | thick | thin | thick | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | | | | | | | | |
| | A | B | | C | D | | | A | B | | | | | | | | | | C | D | A | B | C | D | A | B | C | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| thin | thick | thin | thick | thin | thick | thin | thick | thin | thick | | | | | | | | | | thin | thick | thin | thick | thin | thick | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REQUIRED | 205 | 240 | 515-690 | 45 | 35 | 40 | 50 | 140-217 | 100 | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EFFECTIVE | 289 | 323 | 554 | 61 | 54 | 60 | 79 | 163 | 213 213 213 | 61 61 61 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| US - testing | yes | Results: ASTM A388/A388M-FBH1/5"; EN 10228-4 type 1a; class 3:OK | Date: 18.06.2021 Manager of quality assurance department - V. Kapaieva Signed:  Zaporozhye Melted and Produced in Ukraine. MELTED and MANUFACTURED PrJSC " Dniprospechstal" Phone number +380612834255 e-mail: info@dss.com.ua http://www.dss-ua.com |
| Radiation free; mercury free. No Weld or Weld repair. | | | |

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