

**QUALITY CERTIFICATE**  
№ 2306-051 Date: 05.06.2023

**Manufacturer: PlasmaTec LLC**  
18 Pravednykiv svitu str., Vinnytsia, Vinnytsia region,  
Vinnytsia district, Ukraine, 21036

| Product  |  |
|--|--|
| Welding electrodes Monolith M-316L TM MONOLITH d 3.2 mm: vacuum 1 kg |  |
| Specification/Classification   | AWS A5.4/SFA-5.4: E316/E316L-16<br>EN ISO 3581-A-E 19 12 3 L R 1 2 |
| Batch classification according to EN ISO 14344                       | <b>C5</b>  |
| Lot Number   | <b>004</b>   |

**Mechanical properties of weld metal according to EN 10204, type 2.2**

| Index                                      | EN ISO 3581 | Typical data |
|--|-------------|--------------|
| Tensile strength, MPa (N/mm <sup>2</sup> ) | min. 510    | 566          |
| Yield strength, MPa (N/mm <sup>2</sup> )   | min. 320    | 472          |
| Elongation, %                              | min. 25     | 40           |
| Impact energy (KV), J +20°C                | min. 70     | 71/74/73     |
| EN ISO 3581                                |             | Actual data  |
| Ferrite Number, FN                         | 5 - 15      | 12.5         |

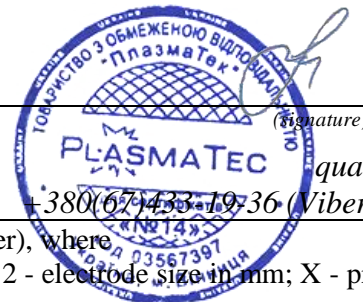
**Chemical analysis of weld metal, % according to EN 10204, type 3.1**

| Index     | Requirements | Actual data |
|-----------|--------------|-------------|
| <b>C</b>  | max. 0.04    | 0.01        |
| <b>Si</b> | max. 1.00    | 0.70        |
| <b>Mn</b> | max. 2.00    | 0.98        |
| <b>P</b>  | max. 0.03    | 0.023       |
| <b>S</b>  | max. 0.025   | 0.023       |
| <b>Cr</b> | max. 20.00   | 18.3        |
| <b>Ni</b> | max. 13.00   | 11.33       |
| <b>Mo</b> | max. 3.00    | 2.93        |
| <b>Cu</b> | max. 0.75    | 0.08        |

**Post weld heat treatment - As welded**

The product was manufactured and supplied according to a Quality System Program that meets the requirements of ISO 9001. The manufacturer guarantees that the product meets the requirements of the specification(s) indicated. The delivery conditions are in accordance with EN ISO 544.

**Head of Technical Control: Andrii Babyn**



Lot Number identification: **001 3.2 XO** (example of Lot number), where  
**001** – actual Lot Number, 3.2 XO - additional information (3.2 - electrode size in mm; X - pressing team, O - packing team).