

## QUALITY CERTIFICATE

№ **2605-119** Issued Date: **13.05.2026**

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

| Product                                                                                                   |
|-----------------------------------------------------------------------------------------------------------|
| <b>Welding electrodes Monolith 7018-1 H4R TM MONOLITH d 3.2 mm (1/8"):</b><br><b>vacuum 2 kg (4.4 LB)</b> |

|                                                       |                                                                                                    |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Specification/Classification</b>                   | AWS A5.1 / SFA-5.1: E7018-1 H4R<br>EN ISO 2560-A- E 46 5 B 3 2 H5<br>CSA W48: E4918-1 H4<br>4Y46H5 |
| <b>Batch classification according to EN ISO 14344</b> | <b>C5</b>                                                                                          |
| <b>Lot Number</b>                                     | <b>001</b>                                                                                         |

### Mechanical properties of weld metal EN 10204, type 2.2

| Index                                              | Requirements (AWS A5.1) | Typical data |
|----------------------------------------------------|-------------------------|--------------|
| <b>Tensile strength, (MPa/ksi)</b>                 | min. 490 (70)           | 609 (88)     |
| <b>Elongation, %</b>                               | min. 22                 | 26           |
| <b>Yield strength, (MPa/ksi)</b>                   | min. 400 (58)           | 539 (78)     |
| <b>Impact energy (KV), J/(ft-lb) (-50°C/-58°F)</b> | min. 27 (20)            | 63 (46)      |
| <b>Diffusible hydrogen, ml/100g</b>                | max. 4                  | 2.4          |

### Chemical analysis of weld metal, % EN 10204, type 3.1

| Index                | Requirements (AWS A5.1) | Actual data |
|----------------------|-------------------------|-------------|
| <b>C</b>             | max. 0.15               | 0.08        |
| <b>Si</b>            | max. 0.75               | 0.60        |
| <b>Mn</b>            | max. 1.6                | 1.36        |
| <b>P</b>             | max. 0.035              | 0.03        |
| <b>S</b>             | max. 0.035              | 0.008       |
| <b>Cr</b>            | max. 0.2                | 0.08        |
| <b>Ni</b>            | max. 0.3                | 0.02        |
| <b>Mo</b>            | max. 0.3                | 0.004       |
| <b>V</b>             | max. 0.08               | 0.01        |
| <b>Mn+Cr+Ni+Mo+V</b> | max. 1.75               | 1.474       |

#### 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 delivery conditions are in accordance with EN ISO 544.

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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)