

**QUALITY CERTIFICATE**

№ **2504-274** Issued Date: **26.04.2025**

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

**Customer: Monolith Bison Inc**  
 501-10022 110 Street Nw,  
 Edmonton, Alberta, T6V 0C6, Canada

Product
<b>Welding electrodes Monolith 7018-1 H4R TM MONOLITH d 4 mm (5/32"): vacuum 5 kg (11 LB)</b>

<b>Specification/Classification</b>	AWS A5.1 / SFA-5.1: E7018-1 H4R EN ISO 2560-A- E 46 5 B 3 2 H5 CSA W48: E4918-1 H4 4Y46H5
<b>Batch classification according to EN ISO 14344</b>	<b>C5</b>
<b>Lot Number</b>	<b>003</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)	580 (84)
<b>Elongation, %</b>	min. 22	37
<b>Yield strength, (MPa/ksi)</b>	min. 400 (58)	504 (73)
<b>Impact energy (KV), J/(ft-lb) (-50°C/-58°F)</b>	min. 27 (20)	95 (70)
<b>Diffusible hydrogen, ml/100g</b>	max. 4	2.5

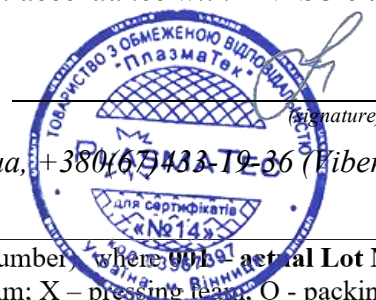
**Chemical analysis of weld metal, %  
EN 10204, type 3.1**

Index	Requirements (AWS A5.1)	Actual data
<b>C</b>	max. 0.15	0.09
<b>Si</b>	max. 0.75	0.69
<b>Mn</b>	max. 1.6	1.39
<b>P</b>	max. 0.035	0.026
<b>S</b>	max. 0.035	0.009
<b>Cr</b>	max. 0.2	0.07
<b>Ni</b>	max. 0.3	0.03
<b>Mo</b>	max. 0.3	0.005
<b>V</b>	max. 0.08	0.02
<b>Mn+Cr+Ni+Mo+V</b>	max. 1.75	1.51

**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.

**Head of Technical Control: Andrii Babyn**



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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))