

QUALITY CERTIFICATE

№ 2502-019 Issued Date: 03.02.2025

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
Welding electrodes Monolith 7018-1 H4R TM MONOLITH d 5 mm (3/16"): vacuum 5 kg (11 LB)

Specification/Classification	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
Batch classification according to EN ISO 14344	C5
Lot Number	002

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

Index	Requirements (AWS A5.1)	Typical data
Tensile strength, (MPa/ksi)	mn. 490 (70)	580 (84)
Elongation, %	min. 22	37
Yield strength, (MPa/ksi)	min. 400 (58)	504 (73)
Impact energy (KV), J/(ft-lb) (-50°C/-58°F)	min. 27 (20)	95 (70)
Diffusible hydrogen, ml/100g	max. 4	2.4

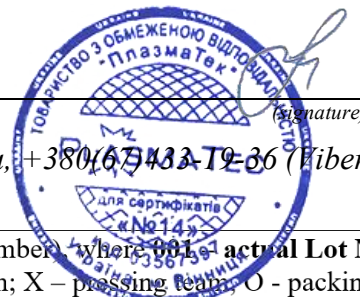
**Chemical analysis of weld metal, %
EN 10204, type 3.1**

Index	Requirements (AWS A5.1)	Actual data
C	max. 0.15	0.09
Si	max. 0.75	0.57
Mn	max. 1.6	1.17
P	max. 0.035	0.021
S	max. 0.035	0.008
Cr	max. 0.2	0.07
Ni	max. 0.3	0.03
Mo	max. 0.3	0.003
V	max. 0.08	0.01
Mn+Cr+Ni+Mo+V	max. 1.75	1.283

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



quality@plasmatec.com.ua, +380(67)433-19-36 (Viber, WhatsApp, Telegram)

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))