

Inspection Certificate (accordance to EN 10204 Type-3.1)

Product: ZChek 9 Black

Non-Fluorescent MPI Fluid

Batch No.: 211246

Mfg. Date: 12/21

We certify that the above product, when tested at the time of manufacturing meets the following requirements

- *ASME Boiler and Pressure Vessel Code 2010, 2013, 2017, 2019, 2021 Edition Section V, Nondestructive Examination including, Article 7, including 2005, 2006, 2008, 2009b and 2011a Addenda, paragraph T-731, paragraph T-765 and Article -25 as applicable.*
- *ASTM E 709-15 paragraph 2.2*
- *AMS-3041F*

Parameter	Test Method	Quality requirement	Batch Result
Contamination	AMS 3041F-3.3.1	No foreign material, scum, or agglomeration	Confirms
Concentration	AMS 3041F-3.3.2	1.0-2.4 ml per 100ml	2 ml per 100ml
Sensitivity	AMS 3041F-3.3.3	6 Hole indication shown	6 Hole indication
Color	AMS 3041F-3.3.4	Black	Black
Particle size	AMS 3041F-3.5	< 2 % residue on 45µ mesh	1.6 % residue on 45µ mesh
Mechanical durability	AMS 3041F -3.6	Retain initial sensitivity and color	Confirms

- *ASTM E 1444/E 1444M-16, Paragraphs 5.5.2 and 5.5.3*
- *ASTM E 709-15, Paragraphs 8.1.2, 8.2, 8.3, 8.5 & 8.5.4*



• **EN ISO 9934-2-2015**

Parameter	EN ISO 9934-2	Quality requirement	Batch Result
Performance	7.1	Indication on Reference block-1 Reference block-2	Pass Length-6cm
Colour	7.2	Black liquid	Color identical
Particle size	7.3	$d > 1.5\mu\text{m}$ - $d < 40\mu\text{m}$	$d_l(10\%) = 20.1\mu\text{m} \Rightarrow 9.50\mu\text{m}$ $d_a = 13.90\mu\text{m}$ $d_u(90\%) = 15.38\mu\text{m}$
Mechanical stability test Short term test	7.10	No degradation in sensitivity	Pass
Storage stability	7.13		3 years

Notes

1. Bulk material has a minimum shelf life of 5 years and Aerosol has minimum shelf life of 3 year.
2. EN ISO 9934-2 (7.15) specification require test results stated in ppm, but some require in percentage. To convert ppm to percentage, divide the ppm value by 10,000.

Signature
Manager Operations
Chaitra.M.N

