

Inspection Certificate (In accordance with EN 10204 Type-3.1)

Product: ZChek-PTW

Water Washable Penetrant For Visible Liquid Penetrant Inspection

Batch No.: 2504140

Mfg. Date: 04/25

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, 2023 Edition section V, Nondestructive Examination including 2005, 2006, 2008, 2009b and 2011a Addenda Article-6 paragraph T-640 and Article 24 as applicable.*
- *ASTME165/E165M23, Paragraph, 6.0, 6.3, 7.1, 7.2.2, 7.5, 7.5.2, 8.5, 8.5.2, 8.6.1, 8.6.1.1(b), 8.7, 8.8, 8.8.4.*
- *ASTM E1417-21, Paragraph, 5.1, 5.1.1.2, 5.1.2.1, 7.2, 7.2.1, 7.3, 7.3.1, 7.3.1.2, 7.4, 7.5, 7.5.2.*

Parameter	ASME Boiler & PV Code	Quality requirement	Batch Result
Sulfur	Sec.V	< 0.1 %	0.0034 wt % of residue
Chlorine + Fluorine	Sec. V	< 0.1 %	0.0021 wt % of residue

- *IS 3658-2013.*
- *EN ISO 3452-2-2021.*

Parameter	EN ISO 3452-2	Quality Requirement	Batch result
Appearance	6.1	Equal to standard	Pass
Sensitivity Test	6.2	Equal to standard	Pass
Density	6.3	0.85-0.90 g/cc @ 29.5 deg.C	0.89 g/cc @ 29.5 deg.C
Viscosity	6.4	7 – 9 cSt @ 40 deg. C	8.78 cSt @ 40 deg.C
Flashpoint	6.5	93 deg.c for bulk	104 deg.C
Washability	6.6	Equal to standard	Pass



Corrosive properties	6.11	No evidence of staining, pitting or any other corrosion on Magnesium Alloy	Pass
Sulfur Content	6.12	< 200 ppm	34 ppm
Halogen Content	6.12	< 200 ppm	21 ppm
Water Content	6.20	< 5 %	3 %

• **Internal quality Check.**

Parameter	Internal Check	Quality Requirement	Batch Result
Appearance	QC/TP/001	Equal to standard	Pass
Viscosity	QC/TP/013	8.5-9.5 cSt @ 40deg.C	8.78 cSt @ 40 deg.C
Density	QC/TP/002	0.85-0.90 g/c @ 29.5 deg.C	0.89 g/cc @ 29.5 deg.C
Flash point	ASTM D92	93 deg.C for bulk	104 deg.C
Surface wetting test	QC/TP/012	Equal to standard	Pass
Miniscous spot test	QC/TP/011	< 4.0 mm	3.0 mm
Drying Test	QC/TP/011	No degradation	Pass
Color Contrast Test	QC/TP/011	Equal to standard	Pass

Notes

1. Bulk material has a minimum shelf life of 5 years and Aerosol has minimum shelf life of 3 years.
2. Most specifications require test results stated in percent, but some require parts per million (ppm). To convert percent to ppm, move the decimal four places to the right.
3. ASME Sec V, procedure states that to evaporate off volatile solvents before analysis for Sulfur and Halogens. According to these specifications, only those residues higher than 0.005 g/100ml shall be analyzed for Sulfur and Halogens. Lower residues shall be reported.

Signature
Quality Chemist

