

Inspection Certificate (accordance to EN 102043.1)

Product: ZChek PTW

For Water Washable Pentrant Inspection

Batch No.: 200308

Mfg. Date: 03/20

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 Edition section V, Nondestructive Examination including 2005, 2006, 2008, 2009b and 2011a Addenda Article-6 paragraph T-640 and Article 24 as applicable.*
- *ASTM E-165/E-165M-12, Paragraph 7.1*

Parameter	ASME Boiler & PV Code	Quality requirement	Batch Result
Sulfur	Sec.V	< 0.1%	0.0052 wt % of residue
Chlorine + Fluorine	Sec. V	< 0.1%	0.0026 wt % of residue

- *ISO 3658-2013*

- *EN ISO 3452-2-2013*

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	0.85-0.90g/cc @ 29.5 deg.C	0.89 g/cc @ 29.5 deg.C
Viscosity	6.4	7 – 9 cSt @40 deg .C	8.9 cSt @ 40 deg.C
Flash point	6.5	93deg.c for bulk	105 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
Sulphur Content	6.12	< 200 ppm	52 ppm
Halogen Content	6.12	< 200 ppm	26 ppm
Water Content	6.20	< 5%	3 %

- **Internal quality Check**

Parameter	Internal Check	Quality Requirement	Batch Result
Colour	QC/ISO/015	Equal to standard	Pass
Viscosity	ASTM D 445	7-9 cSt @ 40 deg.C	8.9 cSt @ 40 deg.C
Density	ASTM D 1298	0.085-0.90g/c @ 29.5 deg.C	0.89g/cc @ 29.5 deg.C
Flash point	ASTM D 92	93 deg.C for bulk	105 deg.C
Surface wetting test	QC/ISO/016	Equal to standard	Pass
Miniscous spot test	NPCL 5.2.1.2(i)	< 4.0 mm	3.0 mm
Drying Test	NPCL 5.2.1.2(iii)	No degradation	Pass
Color Contrast Test	NPCL 5.2.1.2(iv)	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. The NPCL Sulphur and halogen content is evaluated on basis of turbidity against the standard solution.
3. 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.
4. 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
Manager Operations
Chaitra.M.N