December 2015 Quality Assurance Department Marktec Corporation

Notification regarding Inspection Certificates revision of Liquid Penetrant Materials

Dear Customer,

This letter is to notify that we have revised the application of JIS inspection certificates for our JISZ2343compliant Liquid Penetrant Materials from the 2001 version to the 2009 version. Also, in keeping with this revision, with the goal of maintaining smooth business operations, general result reports and analysis result reports previously issued with JIS-compliant products shall be incorporated into the JIS inspection certificates.

We apologize for any inconvenience this may cause, and ask for your understanding and cooperation.

Yours faithfully, Marktec Corporation

1. Modified Items

 1-1. Change of year of applicable standard for inspection certificates (for JIS-compliant products) Relevant standard: JISZ2343-2 Previously 2001 version Changed to 2009 version

1-2. Discontinuation of general result reports and analysis result reports for JIS-compliant products and their incorporation into JIS inspection certificates

Previously	Result reports corresponding to this company's standards were issued as
	general result reports and analysis result reports
After change	General result reports and analysis result reports will be discontinued and their
	results incorporated into JIS inspection certificates
	*Analysis results will be noted in the sulfur and halogen contents of JIS
	inspection certificates.

2. Date of Change

This change will be applied to products manufactured from January 2016 onward.

3. Reasons

Although JISZ2343-2 was revised in October 2009, consistency with JISZ2343-1 in the category of detection materials was not attained. However, since ISO3452-2 was revised in 2013 and consistency of the detection materials category in JISZ2343 is expected to be attained in the future, we have changed to application of the 2009 version, which is the newest version. The changes are outlined in the Annexes.

Lot examinations in current inspection certificates correspond to both the 2001 and 2009 versions.

Annexes 1

1. Required examination items and changes between 2001 and 2009 versions of JIS standards

<Penetrants> Classification: No change

Examination Item	2001 ver.	2009 ver.	Changed Contents of Certificat
Appearance	0	0	No change
Sensitivity	0	0	No change
Density	0	0	No change
Viscosity	0	0	No change
Flash point	0	0	No change
Water washability	0	0	Only examination item name changed (changed from water washability to washability)
Fluorescence	0	0	Type I only
Corrosive Properties	0	0	*1
Sulfur and halogen content	0	0	Add units to resukets document
Water content	×	0	Item added (but methods A and E)

<Removers> Classification: Method C organic solvents in the 2001 version are method C Solvent removable (liquids) in the 2009 version.

Separated into Class 1	(Halogenated) and Class 2	(Nonhalogenated)
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Examination Item	2001 ver.	2009 ver.	Changed Contents of Certificat
Appearance	0	0	No change
Sensitivity	0	0	No change
Density	0	0	No change
Flash point	0	0	No change
Corrosive Properties	0	0	*1
Sulfur and halogen content	0	0	Add units to resukets document
Evaporation residue	0	0	Only examination item name changed
			(changed from residue after evaporation
			to evaporation residue)

<Developers> Classification: Form d products in the 2001 version have been separated into Form d (fluorescent) and e (dye)

Examination Item	2001 ver.	2009 ver.	Changed Contents of Certificat
Appearance	0	0	No change
Sensitivity	×	0	Previously implemented as company-
			managed
Flash point	0	0	No change
Corrosiveness	0	0	*1
Sulfur and halogen content	0	0	Add units to resukets document
Solid content	0	0	No change
Developer performance	0	0	No change
Redispersability	0	0	No change
Density	0	0	Name of examination item changed from
-			density of liquid to density.
			Nonagueous (Form d and Form e apply)

*1: Regarding Corrosive Properties examination

Although examination of three material quality specimens of 7075-T6 aluminum alloy, AZ-31B magnesium alloy, and 30CrMo4 steel was required in the 2001 version, this was changed in 2009 so that only AZ-31B magnesium alloy is required.

Annexes 2

The types of result reports issuable for each product are as set forth in the table below.

Two types of reports for JIS-compliant detection materials: JIS inspection certificate (in Japanese and English) and ASME analysis result report (English).

Penetrant	Penetrant			
Product Name	JIS Z 2343:2009 Japanese or English)	ASME result report (English))		
Super Check Color Contrast Penetrant UP-ST Super Check Color Contrast Penetrant UP-ST(J)	0	-		
Super Check Color Contrast Penetrant UP-T Super Check Color Contrast Penetrant UP-T(J)	0	0		
Super Check Color Contrast Penetrant UP-GII	0	_		
Super Check Color Contrast Penetrant UP-G皿・T Super Check Color Contrast Penetrant UP-G皿・T(J)	0	0		
Super Check Color Contrast Penetrant UP-NU • G Super Check Color Contrast Penetrant UP-NU • G(J)	0	_		
Super Check Color Contrast Penetrant UP-ST Aerosol 450 Type	0	-		
Super Check Color Contrast Penetrant UP-T Aerosol 450 Type Super Check Color Contrast Penetrant UP-T(J) Aerosol 450 Type	0	0		
Super Check Color Contrast Penetrant UP-G $III \cdot T$ Aerosol 450 Type Super Check Color Contrast Penetrant UP-G $III \cdot T(J)$ Aerosol 450 Type	0	0		
Eco Check Color Contrast Penetrant EP-ST Eco Check Color Contrast Penetrant EP-ST(J)	0	_		
Eco Check Color Contrast Penetrant EP-T Eco Check Color Contrast Penetrant EP-T(J)	0	0		
Eco Check Color Contrast Penetrant EP-ST Aerosol 450 Type Eco Check Color Contrast Penetrant EP-ST JUMBO Aerosol 600 Type Eco Check Color Contrast Penetrant EP-ST(J) Aerosol 450 Type Eco Check Color Contrast Penetrant EP-ST JUMBO Aerosol 600 Type	0	_		
Eco Check Color Contrast Penetrant EP-T Aerosol 450 Type Eco Check Color Contrast Penetrant EP-T(J) Aerosol 450 Type	0	0		
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Super Clo Elucroscopt Bapetrant OD 2800T	_			

Super Glo Fluorescent Penetrant OD-2800T	0	0

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Cleaner/Remove		
Product Name	JIS Z 2343:2009 Japanese or English)	ASME result report (English))
Super Check Cleaner/Remover UR-ST	0	—
Super Check Cleaner/Remover UR-T	0	0
Super Check Cleaner/Remover UR-T · M	0	0
Super Check Cleaner/Remover AS-T	0	0
Eco Check Cleaner/Remover ER-ST	0	_
Eco Check Cleaner/Remover ER-T	0	0
Super Check Cleaner/Remover UR-NU · G	0	—
Super Check Cleaner/Remover UR-ST Aerosol 450 Type	0	_
Super Check Cleaner/Remover UR-T · M Aerosol 450 Type	0	0
Super Check Cleaner/Remover UR-T · M	0	0
Super Check Cleaner/Remover AS-T Aerosol 450 Type	0	0
Super Check Cleaner/Remover UR-NU · G Aerosol 450 Type	0	_
Eco Check Cleaner/Remover ER-ST Aerosol 450 Type	0	-
Eco Check Cleaner/Remover ER-T Aerosol 450 Type	0	0

Developer			
Product Name	JIS Z 2343:2009 Japanese or English	ASME result report (English))	
Super Check Developer UD-T	0	0	
Eco Check Developer ED-ST	0		
Eco Check Developer ED-T	0	0	
Super Check Developer UD-NU · G	0	—	
Super Check Developer UD-ST · V	0	—	
Super Check Developer UD-ST	0	_	
Super Check Developer UD-ST Aerosol 450 Type	0	_	
Super Check Developer UD-T Aerosol 450 Type	0	0	
Super Check Developer UD-ST · V Aerosol 450 Type	0	_	
Super Check Developer UD-T · V Aerosol 450 Type	0	0	
Super Check Developer UD-NU · G Aerosol 450 Type	0	—	
Eco Check Developer ED-ST Aerosol 450 Type	0	—	
Eco Check Developer ED-T Aerosol 450 Type	0	0	
Eco Check Developer ED-T · V Aerosol 450 Type	0	0	