



<b>Prüfbericht - Nr.:</b> 10043671 001		<b>Seite 1 von 3</b>	
<i>Test Report No.:</i>		<i>Page 1 of 3</i>	
<b>Auftraggeber:</b> <i>Client:</i>	Mars Valve Co., Ltd. No. 83, Sec. 1, Chung-De 8th Road, Taichung 406, Taiwan, R.O.C.		
<b>Gegenstand der Prüfung:</b> <i>Test Item:</i>	1 polymer, white		
<b>Bezeichnung:</b> <i>Identification:</i>	Parts of Teflon Material: PTFE		
<b>Anlieferungszustand:</b> <i>Delivery condition:</i>	apparent good	<b>Eingangsdatum:</b> <i>Date of Receipt:</i>	2013-09-13
<b>Prüfart:</b> <i>Testing location:</i>	Laboratories of TÜV Rheinland Greater China		
<b>Prüfgrundlage:</b> <i>Test specification:</i>	Select tests of (EU) No.10/2011 according to customers specification for the following parameters: Global migration, Specific migration of metals, Migration of Primary aromatic amines		
<b>Prüfergebnis:</b> <i>Test result:</i>	The test result are the measurements, stated in the test report.		
<b>geprüft:</b> <i>tested by:</i>		<b>kontrolliert:</b> <i>checked by:</i>	
 2013-10-02 Anne Chen /Coordinator		 2013-10-02 Carl Chang /Department Manager	
<b>Datum</b> <i>Date</i>	<b>Name/Stellung</b> <i>Name/Position</i>	<b>Unterschrift</b> <i>Signature</i>	<b>Datum</b> <i>Date</i>
<b>Sonstiges/ Other Aspects:</b>			
Test period: 2013-09-13 – 2013-10-02			
<b>Abkürzungen:</b>		<b>Abbreviations:</b>	
ok / P = entspricht Prüfgrundlage		ok / P = passed	
fail / F = entspricht nicht Prüfgrundlage		fail / F = failed	
n.a. / N = nicht anwendbar		n.a. / N = not applicable	
<p><b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b></p> <p><i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i></p>			



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Customer : Mars Valve Co., Ltd.

2013-10-02

## 1. Global migration

The overall migratory behaviour is examined based on EC-Directive 2002/72/EC and corresponding regulations. Deviating to the regulations the following tests were performed as orientating single tests. The following simulation solvents and test conditions were requested by the client:

Migration solution	test duration/temperature
3% Acetic acid	4 hr / 100°C
50% Ethanol	4 hr / 100°C
95% Ethanol	6 hr / 60°C
Isooctane	4 hr / 60°C

Sample	Parts of Teflon Material:
Lab.-No.	PTFE TCL130913-03
3% Acetic acid	mg/dm <sup>2</sup> <10
50% Ethanol	mg/dm <sup>2</sup> <10
95% Ethanol	mg/dm <sup>2</sup> <10
Isooctane	mg/dm <sup>2</sup> <10

According to (EU) No.10/2011, the material with contact to food may not submit more than 10 mg/dm<sup>2</sup> of substances (global migration).

The tested sample does keep this limit.

## 2. Specific migration of metals according to (EU) No. 10/2011

The following simulation solvents and test conditions were requested by the client. The concentration of the following elements is examined by means of ICP/OES.

Migration solution	test duration/temperature
3% Acetic acid	4 hr / 100°C

Sample	Parts of Teflon Material:
Lab.-No.	PTFE TCL130913-03
Barium, Ba	mg/kg <1
Cobalt, Co	mg/kg <0.05
Copper, Cu	mg/kg <5
Iron, Fe	mg/kg <48
Lithium, Li	mg/kg <0.6
Manganese, Mn	mg/kg <0.6
Zinc, Zn	mg/kg <25

The examined sample meets these limits.



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### 3. Migration of Primary aromatic amines

The determination of primary aromatic amines is carried out according to § 64 LFGB L 00.00-6. The following simulation solvents and test conditions were stipulated:

food simulant	test duration/temperature
3% Acetic acid	4 hr / 100°C
Sample	Parts of Teflon Material: PTFE
Lab.-No.	TCL130913-03
primary aromatic amines	mg/kg <0.01

According to (EU) No.10/2011 plastic materials and articles shall not release primary aromatic amines in a detectable quantity (Detection limit = 0.01 mg/kg of food or food simulant). The migration of the primary aromatic amines appearing in the lists in Table 1 of Annex I (EU) No.10/2011 is excluded from this restriction.

### Test Methods

Global migration § 64 LFGB 80.30 1-3(EG) (2002/72/EC)  
Specific migration of metals with reference to § 64 LFGB 80.30 1-3(EG) (2002/72/EC)  
Migration of Primary aromatic amines § 64 LFGB L 00.00-6

### Test Sample



--- End of Test-Report ---

