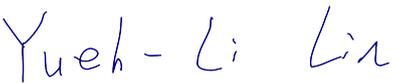


<b>Prüfbericht - Nr.: 238485547c 001</b>		<b>Seite 1 von 6</b>
<i>Test Report No.:</i>		<i>Page 1 of 6</i>
<b>Auftraggeber:</b> <i>Client:</i>	Chi Mei Corporation No.59-1, Sanjiazi, Rende Dist., Tainan City 71702,, Taiwan, R.O.C.	
<b>Gegenstand der Prüfung:</b> <i>Test Item:</i>	POLYCARBONATE	
<b>Bezeichnung:</b> <i>Identification:</i>	WONDERLITE® PC-110U	
<b>Anlieferungszustand:</b> <i>Delivery condition:</i>	apparent good	<b>Eingangsdatum:</b> <i>Date of Receipt:</i> 2020-04-23
<b>Prüfört:</b> <i>Testing location:</i>	TÜV Rheinland Hong Kong Ltd.	
<b>Prüfgrundlage:</b> <i>Test specification:</i>	Selected tests for the suitability for contact with foodstuffs complied with the following regulations: Sensorial examination, Global Migration, Specific Migration of metals, Specific Migration of Bisphenol A, Specific Migration of Diphenyl Carbonate, Specific Migration of Irganox 1076 with reference to (EU) No.10/2011	
<b>Prüfergebnis:</b> <i>Test result:</i>	The test results are the measurements, stated in the test report.	
<b>geprüft: tested by:</b>	<b>kontrolliert: checked by:</b>	
		
2020-05-29 Yueh-Li Lin /Senior Project Coordinator	2020-05-29 Arthur Cheng /Project 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>Name/Stellung</b> <i>Name/Position</i>	<b>Unterschrift</b> <i>Signature</i>
<b>Sonstiges/ Other Aspects:</b>		
Test period: 2020-04-23 – 2020-05-29		
<b>Abkürzungen:</b>	ok / P = entspricht Prüfgrundlage fail / F = entspricht nicht Prüfgrundlage n.a. / N = nicht anwendbar	<b>Abbreviations:</b> ok / P = passed fail / F = failed n.a. / N = not applicable
<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> <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>		

Test Report No. : 238485547c 001  
Customer : Chi Mei Corporation

2020-05-29

## 1. Sensorial examination

Test method: It is examined to the extent of food simulant being used, which comes into contact with the product, undergoes detectable changes in taste and smell.

For this purpose, the food simulant was stored in the product under the below mentioned time and temperature. Afterwards, the food simulant was examined by an appropriate number of tasters with regard to any divergence in smell and taste. Another test sample, which was used as a reference, was treated by the same way except that it had no contact with the product to be tested.

*Before testing, the product had been cleaned according to the product's instruction manual or in the absence of such manual, by normal household cleaning.*

The test is carried out on the basis of DIN 10955:2004 by paired comparison test:

Evaluation scheme: 0 = No discernible deviation  
1 = Barely discernible deviation  
2 = Weak deviation  
3 = Clear deviation  
4 = Strong deviation  
Limit: 2.5 (failed)

The following food simulants and conditions were applied per client's request:

Food simulant	Test duration / Temperature
Water	1 hour(s) / 40 °C

Sample	WONDERLITE® PC-110U
Material	plastic/transparent
Lab.-No.	TCL200423-02
<b>Parameter:</b>	<b>Result</b>
Transfer of Smell:	0
Transfer of Taste:	0

The examined item does meet the requirement.

Test Report No. : 238485547c 001  
Customer : Chi Mei Corporation

2020-05-29

## 2. Global Migration

Test method: The migratory behaviour is examined with reference to Chapter V, Article 18 of Commission Regulation 10/2011 and its amendments. Deviating to the regulations the following tests were performed as orientating single tests.

Limit: Commission Regulation (EU) No 10/2011 and its amendments

The following food simulants and conditions were applied per client's request:

Food simulant	Test duration / Temperature
Acetic acid 3 %	10 day(s) / 40 °C
Ethanol 20%	10 day(s) / 40 °C
Ethanol 50%	10 day(s) / 40 °C
Oil	10 day(s) / 40 °C

Sample	WONDERLITE® PC-110U		
Material	plastic/transparent		
Lab.-No.	TCL200423-02		
Parameter	Unit	Result	Limit
Acetic acid 3 %	mg/dm <sup>2</sup>	3.4	10
Ethanol 20%	mg/dm <sup>2</sup>	2.0	10
Ethanol 50%	mg/dm <sup>2</sup>	<2	10
Oil	mg/dm <sup>2</sup>	<3	10

Abbreviation: mg/dm<sup>2</sup> = Milligram per square decimetre  
< = Less than

The examined item does meet the requirement.

## 3. Specific Migration of metals, Metal-release from Plastic

Test method: The migratory behaviour is examined with reference to Chapter V, Article 18 of Commission Regulation 10/2011 and its amendments. The determination of amounts of metals that were released is done via ICP-OES with reference to ISO 11885:2007.

Limit: Commission Regulation (EU) No 10/2011 and its amendments

The following food simulants and conditions were applied per client's request:

Food simulant	Test duration / Temperature
Acetic acid 3 %	10 day(s) / 40 °C

Sample	WONDERLITE® PC-110U		
Material	plastic/transparent		
Lab.-No.	TCL200423-02		
Parameter	Unit	Result	Limit
Barium, Ba	mg/kg	<0.1	1
Cobalt, Co	mg/kg	<0.01	0.05
Copper, Cu	mg/kg	<0.1	5
Iron, Fe	mg/kg	<1	48
Lithium, Li	mg/kg	<0.1	0.6
Manganese, Mn	mg/kg	<0.1	0.6
Zinc, Zn	mg/kg	<1	5
Aluminium, Al	mg/kg	0.12	1
Nickel, Ni	mg/kg	<0.01	0.02

Test Report No. : 238485547c 001  
Customer : Chi Mei Corporation

2020-05-29

Food simulant	Test duration / Temperature
Ethanol 20%	10 day(s) / 40 °C

Sample	WONDERLITE® PC-110U		
Material	plastic/transparent		
Lab.-No.	TCL200423-02		
Parameter	Unit	Result	Limit
Barium, Ba	mg/kg	<0.1	1
Cobalt, Co	mg/kg	<0.01	0.05
Copper, Cu	mg/kg	<0.1	5
Iron, Fe	mg/kg	<1	48
Lithium, Li	mg/kg	<0.1	0.6
Manganese, Mn	mg/kg	<0.1	0.6
Zinc, Zn	mg/kg	<1	5
Aluminium, Al	mg/kg	<0.1	1
Nickel, Ni	mg/kg	<0.01	0.02

Food simulant	Test duration / Temperature
Ethanol 50%	10 day(s) / 40 °C

Sample	WONDERLITE® PC-110U		
Material	plastic/transparent		
Lab.-No.	TCL200423-02		
Parameter	Unit	Result	Limit
Barium, Ba	mg/kg	<0.1	1
Cobalt, Co	mg/kg	<0.01	0.05
Copper, Cu	mg/kg	<0.1	5
Iron, Fe	mg/kg	<1	48
Lithium, Li	mg/kg	<0.1	0.6
Manganese, Mn	mg/kg	<0.1	0.6
Zinc, Zn	mg/kg	<1	5
Aluminium, Al	mg/kg	<0.1	1
Nickel, Ni	mg/kg	<0.01	0.02

Abbreviations: mg/kg = Milligram per kilogram  
< = Less than

The examined item does meet the requirement

Test Report No. : 238485547c 001  
Customer : Chi Mei Corporation

2020-05-29

#### 4. Specific Migration of Bisphenol A

Test method: The migratory behaviour is examined with reference to Chapter V, Article 18 of Commission Regulation 10/2011 and its amendments. Presence of Bisphenol A is detected according to EN 13130-13.

Limit: Commission Regulation (EU) No 10/2011 and its amendments

The following food simulants and conditions were applied per client's request:

Food simulant	Test duration / Temperature
Acetic acid 3 %	10 day(s) / 40 °C
Ethanol 20%	10 day(s) / 40 °C
Ethanol 50%	10 day(s) / 40 °C

Sample	WONDERLITE® PC-110U		
Material	plastic/transparent		
Lab.-No.	TCL200423-02		
<b>Parameter - Bisphenol A</b>	<b>Unit</b>	<b>Result</b>	<b>Limit</b>
Acetic acid 3 %	mg/kg	<0.01	0.05
Ethanol 20%	mg/kg	<0.01	0.05
Ethanol 50%	mg/kg	<0.01	0.05

Abbreviations: mg/kg = Milligram per kilogram  
< = Less than

The examined item does meet the requirement

#### 5. Specific Migration of Diphenyl Carbonate

Test method: The migratory behaviour is examined with reference to Chapter V, Article 18 of Commission Regulation 10/2011 and its amendments. Presence of diphenyl carbonate is detected by means of LC-DAD.

Limit: Commission Regulation (EU) No 10/2011 and its amendments

The following food simulants and conditions were applied per client's request:

Food simulant	Test duration / Temperature
Acetic acid 3 %	10 day(s) / 40 °C
Ethanol 20%	10 day(s) / 40 °C
Ethanol 50%	10 day(s) / 40 °C

Sample	WONDERLITE® PC-110U			
Material	plastic/transparent			
Lab.-No.	TCL200423-02			
<b>Parameter - Diphenyl carbonate</b>	<b>CAS No.</b>	<b>Unit</b>	<b>Result</b>	<b>Limit</b>
Acetic acid 3 %	102-09-0	mg/kg	<0.05	0.05
Ethanol 20%	102-09-0	mg/kg	<0.05	0.05
Ethanol 50%	102-09-0	mg/kg	<0.05	0.05

Abbreviations: mg/kg = Milligram per kilogram  
< = Less than

The examined item does meet the requirement

Test Report No. : 238485547c 001  
 Customer : Chi Mei Corporation

2020-05-29

### 6. Specific Migration of Irganox 1076 <sup>(1)</sup>

Test method: In-house method - Determination of Irganox 1076 <sup>(1)</sup> after migration under specified conditions, quantification by LC-MS.

Limit: Commission Regulation (EU) No 10/2011 and amendments

The following food simulants and conditions were applied per client's request:

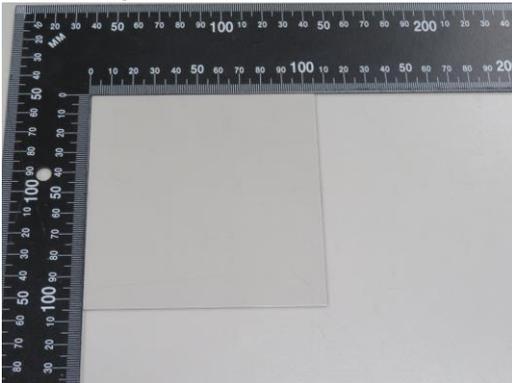
Food simulant	Test duration / Temperature
Acetic acid 3 %	10 day(s) / 40 °C
Ethanol 20%	10 day(s) / 40 °C
Ethanol 50%	10 day(s) / 40 °C

Sample	WONDERLITE® PC-110U		
Material	plastic/transparent		
Lab.-No.	TCL200423-02		
<b>Parameter- Irganox 1076</b>	<b>Unit</b>	<b>Result</b>	<b>Limit</b>
Acetic acid 3 %	mg/kg	<0.5	6
Ethanol 20%	mg/kg	<0.5	6
Ethanol 50%	mg/kg	<0.5	6

Abbreviation: mg/kg = Milligram per kilogram  
 < = Less than

Remark: \*1 Octadecyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate CAS# 2082-79-3  
 \*2 The examined item does meet the requirement

### Test Sample



--- End of Test-Report ---