

# TEST REPORT

**Applicant** : Mid Ocean Hong Kong Ltd.

**Address** : 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan,  
Kowloon, Hong Kong.

**Sample description** : MO6582 double wall tumbler  
MO6583 double wall tumbler

**Item no.** : MO6582  
MO6583

**Vendor no.** : 111034

**Sample received date** : 06-Nov-2024

**Further information date** : 20-Nov-2024

**Turn around time** : 06-Nov-2024 To 21-Nov-2024

The following test item(s) was/were performed on submitted sample(s) and/or component(s) confirmed by applicant

| TEST REQUESTED                                                                                    | TEST METHOD/REGULATION | RESULT          |
|---------------------------------------------------------------------------------------------------|------------------------|-----------------|
| Mechanical dishwashing resistance of utensils-Part 1: Reference test method for domestic articles | BS EN 12875-1: 2005    | See Test Result |
| Mechanical dishwashing resistance of utensils-Part 2: Inspection of non-metallic articles         | BS EN 12875-2:2002     | See Test Result |

*Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to [info.sh@cpt.eurofinscn.com](mailto:info.sh@cpt.eurofinscn.com) and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to [info.sh@cpt.eurofinscn.com](mailto:info.sh@cpt.eurofinscn.com) and referring to this report number.*



**Eurofins (Shanghai) contact information****Customer service:** [Winnie.Dong@cpt.eurofinscn.com](mailto:Winnie.Dong@cpt.eurofinscn.com)\**Sales specialist:** [Lily.Li@cpt.eurofinscn.com](mailto:Lily.Li@cpt.eurofinscn.com)\

\*\*\*\*\* FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) \*\*\*\*\*

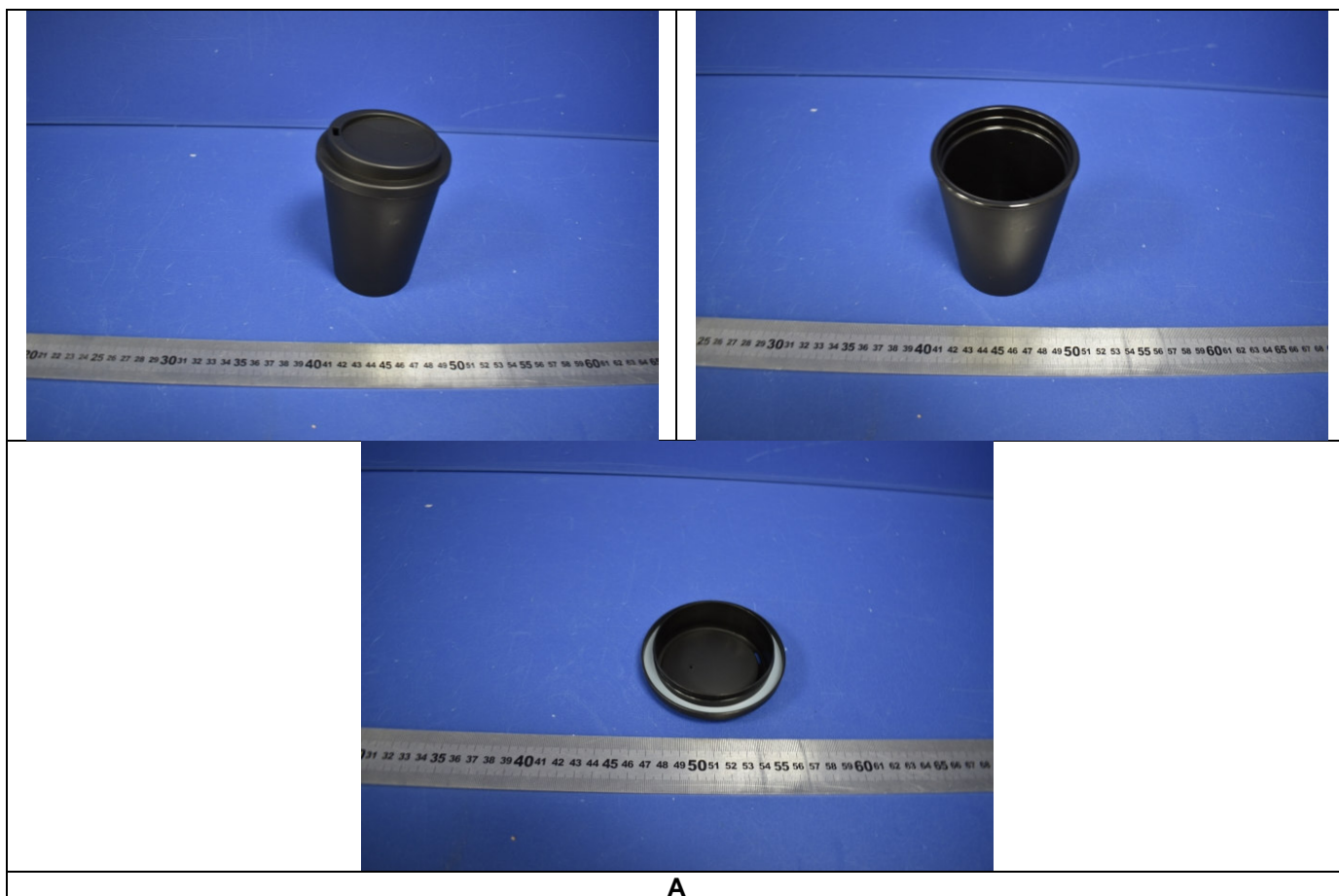
Signed for and on behalf of  
Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd.



Rain Chen  
Lab Director SLTH



**TEST SAMPLE PHOTO(S)**

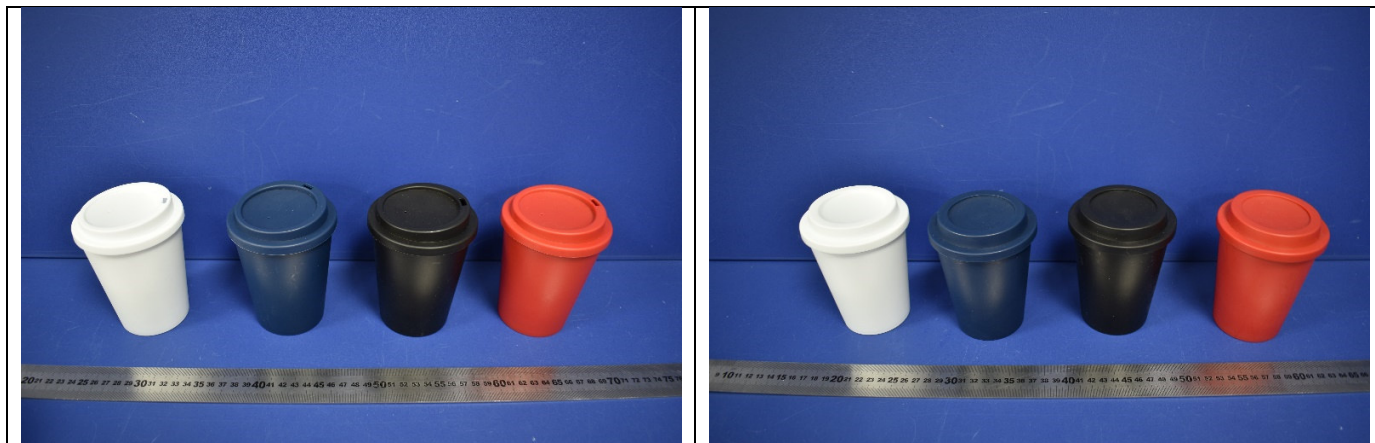


A

**EFW524110193-CG-03**

\*\*\*TO BE CONTINUED\*\*\*

### REFERENCE SAMPLE PHOTO(S)



The reference sample(s) has not been tested in current report, but according to customer's request, the picture has also been included. For sample tested in current report, please refer to "Test sample photo".

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

### BS EN 12875-1: 2005

#### Mechanical dishwashing resistance of utensils-Part 1: Reference test method for domestic articles

1) Number of tested sample:   1   Pieces

2) Number of controlled sample:   /   Pieces

#### 3) Test Procedure

| Clause | Test item                       | Test methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.1    | Preparation of test dish washer | When testing metal articles, after each regeneration of the ion exchanger with sodium chloride, run one test cycle(see 8.3) with no test specimens                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 8.2    | Loading the test dishwasher     | The test dishwasher shall be fully loaded, using dummy articles to fill excess capacity if necessary. Each specimen shall be placed in the appropriate basket making sure that the specimens will not come into contact with each other during testing. All surfaces shall be equally exposed to the water spray, and the specimens shall be positioned in a way that avoids the formation of water pools. It is permissible to simultaneously wash several different types of domestic articles of ceramic, glass, metal or plastics.<br>Note The risk of interaction between different materials should be considered. Where there is such a risk, such specimens should not be tested together. If it is necessary to withdraw a test specimen during the test, it shall be replaced by a similar article. |
| 8.3    | Test cycle                      | The test cycle shall comprise the stages specified in EN 12875-1:2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 8.4    | Parameter control               | The parameters of the test cycle listed below shall be verified before starting the first test cycle and after every <u>  10  </u> <sup>th</sup> test cycles. as per client's request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 8.5    | Number of test cycles           | Subject specimens to <u>  10  </u> test cycles, as per client's request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

#### 4) Test result:

### BS EN 12875-2:2002

#### Mechanical dishwashing resistance of utensils-Part 2: Inspection of non-metallic articles

After   10   cycle(s)

| Product No | Color | Gloss | Clouding | Resistant deposits and iridescent layers | Other aspects |
|------------|-------|-------|----------|------------------------------------------|---------------|
| A          | 0     | 0     | /        | /                                        | 0             |

Table 1 – Inspection criteria

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

| Articles with or without decoration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Colour <sup>(1)</sup> | gloss | Clouding | Resistant deposits and iridescent layers <sup>(2)</sup> | Other aspects |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------|----------|---------------------------------------------------------|---------------|
| Ceramic tableware                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | +                     | +     |          | +                                                       | +(3) (4) (5)  |
| Glass, glass ceramic ware                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | +                     | +     | +(6)     | +                                                       | + (4) (5)     |
| Vitreous enameled tableware                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | +                     | +     |          | +                                                       | +(3) (4) (5)  |
| Plastic articles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | +                     | +     | +(6)     | +                                                       | +(3)(7)       |
| (+) = to be inspected<br>(1) If several colours are present on one article to be inspected, the colour with the greatest change shall be chosen.<br>(2) For the elimination of easily removable deposits.<br>(3) e.g. crazing.<br>(4) The adherence of decorations shall be tested by repeated wiping with a moist cloth under slight pressure.<br>(5) Abrasion which is caused by friction during the dishwasher treatment shall be disregarded.<br>(6) Transparent articles only<br>(7) Swelling, deformation, cracking, or delamination |                       |       |          |                                                         |               |

Table 2 – Evaluation of inspection criteria

| Classification | Rating                   |
|----------------|--------------------------|
| 0              | No visible change        |
| 1              | First discernible change |
| 2              | Clearly visible change   |

**Remark:**

Powder detergent: "Cascade" dishwasher detergent

The test item(s) was/were subcontracted to Eurofins internal lab.

\*\*\*END OF THE REPORT\*\*\*

# TEST REPORT

**Applicant** : Mid Ocean Hong Kong Ltd.

**Address** : 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan,  
Kowloon, HongKong

**Sample description** : MO6582 double wall tumbler  
MO6583 double wall tumbler

**Item no.** : MO6582,MO6583

**Vendor code.** : 111034

**Sample received date** : 02-Dec-2024

**Turn around time** : 02-Dec-2024 To 10-Dec-2024

The following test item(s) was/were performed on submitted sample(s) and/or component(s) confirmed by applicant

| TEST REQUESTED                                                                                                                                                 | TEST METHOD/REGULATION | RESULT |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------|
| Materials and articles in contact with food stuffs- Test method for the: resistance to microwave heating of ceramic, glass, glass-ceramic or plastics cookware | EN 15284:2007          | Pass   |

**Eurofins (Shanghai) contact information**

**Customer service:** [Winnie.Dong@cpt.eurofinscn.com](mailto:Winnie.Dong@cpt.eurofinscn.com)\

**Sales specialist:** [Lily.Li@cpt.eurofinscn.com](mailto:Lily.Li@cpt.eurofinscn.com)\

\*\*\*\*\* FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) \*\*\*\*\*

Signed for and on behalf of  
Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd.



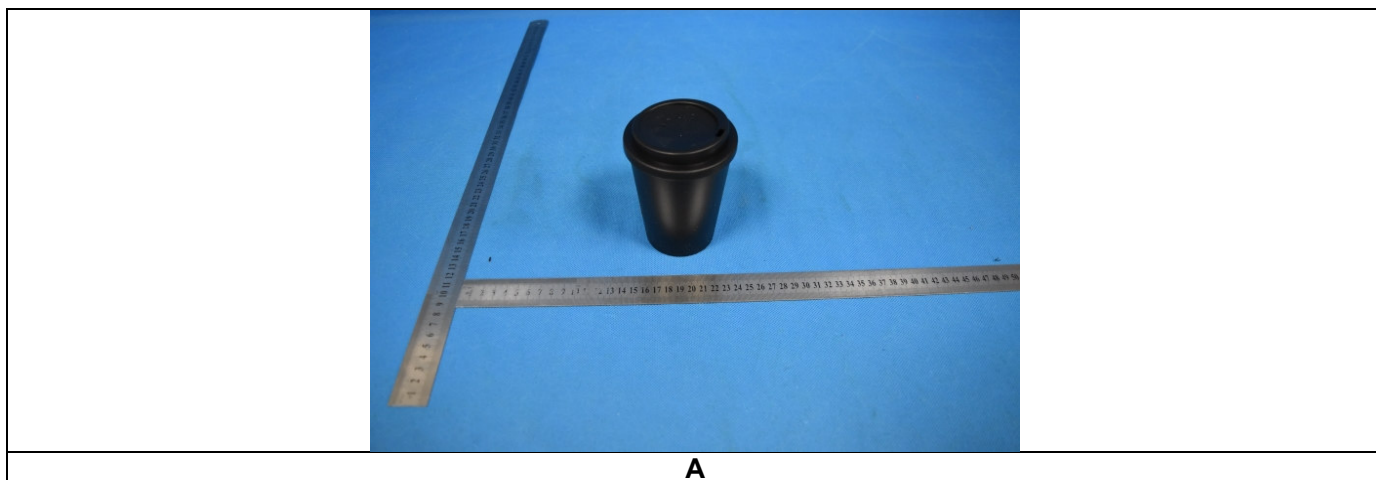
Rain Chen  
Deputy Regional Director,  
Hardlines Division



*Samples are obtained by express delivery, Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to [info.sh@cpt.eurofinscn.com](mailto:info.sh@cpt.eurofinscn.com) and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins MTS Consumer Product Testing (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to [info.sh@cpt.eurofinscn.com](mailto:info.sh@cpt.eurofinscn.com) and referring to this report number.*



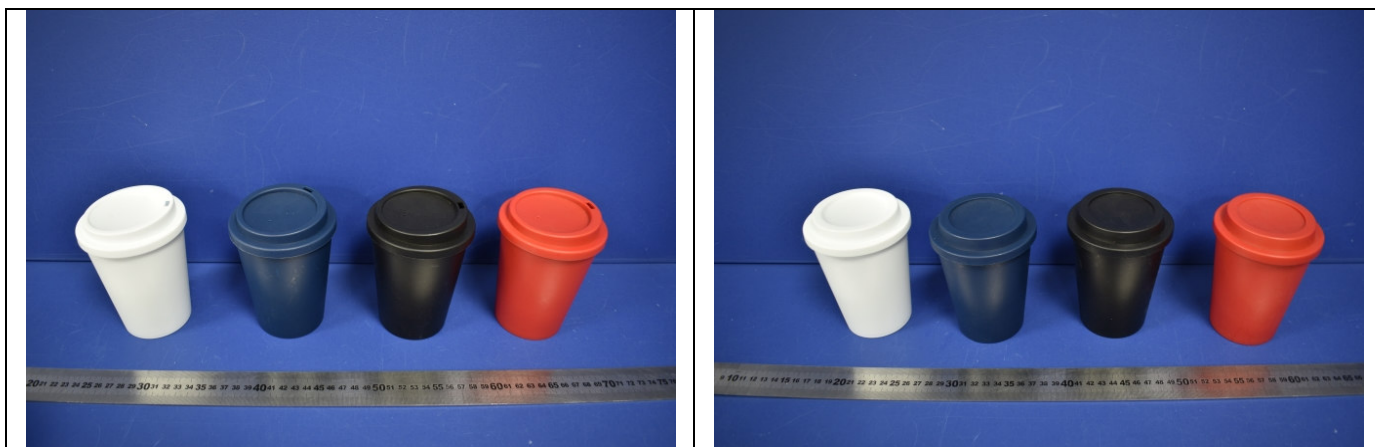
**TEST SAMPLE PHOTO(S)**



**EFW524120342-CG-01**

\*\*\*TO BE CONTINUED\*\*\*

## REFERENCE SAMPLE PHOTO(S)



The reference sample(s) has not been tested in current report, but according to customer's request, the picture has also been included. For sample tested in current report, please refer to "Test sample photo".

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

**EN 15284:2007 Materials and articles in contact with food stuffs- Test method for the: resistance to microwave heating of ceramic, glass, glass-ceramic or plastics cookware**

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Number Of Tested Samples:</b>        | 1 piece                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Sample Material:</b>                 | plastic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Microwave power output:</b>          | 600W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Short period time (for 72000 J):</b> | 120s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Long period (for 468000 J):</b>      | 780s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Test Procedure:</b>                  | <ol style="list-style-type: none"> <li>1. Apply a stain to the surface of the test specimen and wash clear.</li> <li>2. Visually check that the surface is not damaged. Note any small faults prior to testing.</li> <li>3. Except for articles made from glass or glass-ceramic, immerse the test specimen in water at a temperature of <math>(20 \pm 3) ^\circ\text{C}</math> for one hour and then wipe the surface dry with a cloth.</li> <li>4. Pour <math>(125 \pm 2, 5)</math> ml of water into each water container and place at the back of the oven so as not to interfere with the turntable.</li> <li>5. Place the test specimen at the center of the turntable for the short heating period test. If electrical arcing begins IMMEDIATELY SWITCH OFF THE OVEN. Terminate the test and state in the test report that at the onset of electrical arcing the test was terminated.</li> <li>6. After the cycle is completed, open the oven door and, if applicable, using the surface temperature measuring apparatus, find and record the highest temperature of the handle. When additional data is required, follow this procedure to find the highest surface temperature. Ensure that this process takes no longer than 45 s.</li> <li>7. Immediately following 6 set the oven for the long period and restart.</li> <li>8. After completion, when additional data is required, record the highest surface temperature (in no more than 45 s). Remove the test specimen from the oven and allow it to cool on an insulated surface to prevent thermal shock.</li> <li>9. Apply stain to the test specimen and wash clear.</li> <li>10. Visually inspect the test specimen for damage according to the criteria in Table 1.</li> <li>11. Repeat the test using the different article shapes in the set.</li> </ol> |
| <b>Test Requirement:</b>                | <ol style="list-style-type: none"> <li>1. Record the highest temperature for each item tested in a set.</li> <li>2. Record any damage that has occurred to individual items.</li> <li>3. Record any arcing, temperature limits and damage. <ul style="list-style-type: none"> <li>● If arcing occurs (5), the article fails the test and is unsuitable for use in a microwave oven.</li> <li>● The maximum surface temperature of handles after the short period heating (6) shall not exceed the following limit values:<br/> ceramic, glass-ceramic or glass: <math>56 ^\circ\text{C}</math>;<br/> plastics: <math>60 ^\circ\text{C}</math>.</li> </ul> </li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

|                        |                                                                                                                                                                                                                                       |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | 4. If any damage occurs (according to the criteria in 10), the article fails the test and is unsuitable for use in a microwave oven.                                                                                                  |
| <b>Test Result:</b>    | No any damage present after test<br>No any arcing presented after test<br>Visually Inspection Result:<br>No<br>Cracking Colour change<br>Melting Deformation Charring were observed<br><br>Suitability for re-use in a microwave oven |
| <b>Test Conclusion</b> | <b>Pass</b>                                                                                                                                                                                                                           |

**Remark:**

1. Pass= No cracking listed in Table 1 were found.

Table 1 — Inspection criteria

| Material                                                                                                                                                                                                                                                                                                                                                         | Cracking | Crazing        | Scaling        | Colour         | Melting        | Deformation | Suitability for re-use | Charring |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|----------------|----------------|----------------|-------------|------------------------|----------|
| Ceramic                                                                                                                                                                                                                                                                                                                                                          | +        | + <sup>a</sup> | + <sup>b</sup> | + <sup>c</sup> |                |             |                        |          |
| Glass, glass-ceramic                                                                                                                                                                                                                                                                                                                                             | +        |                | + <sup>b</sup> | + <sup>c</sup> |                |             |                        |          |
| Plastics                                                                                                                                                                                                                                                                                                                                                         | +        |                |                | + <sup>c</sup> | + <sup>d</sup> | +           | + <sup>e</sup>         | +        |
| (+) = to be inspected<br><sup>a</sup> refers to the glaze<br><sup>b</sup> refers to on-glaze decoration<br><sup>c</sup> if several colours are present on one article to be inspected, the colour with the greatest change shall be chosen<br><sup>d</sup> article shall not be too soft to handle<br><sup>e</sup> article shall be washable and stain resistant |          |                |                |                |                |             |                        |          |

2. The test was subcontracted to Eurofins Product Testing Service (Shanghai) Co., Ltd. Hangzhou Branch.

\*\*\*END OF THE REPORT\*\*\*