

---

**HS 3003 Low Temperature Resistance Test****1. Purpose**

For containers that may be put into a refrigerator, a low temperature resistance test is required. In this test, food/drink containers are treated at sub-zero temperature for assessing their low temperature resistance capability.

**2. Terminology****2.1 Disposable food /drink container**

Containers of any shape are being used for temporary storage of food or beverage and disposed of after use.

**3. Apparatus**

3.1 Low temperature chamber, a freezer capable to maintain temperature down to – 25 °C or below.

**4. Procedures**

- 4.1 The test specimen should be inspected before to ensure that there are no breakage, cracks or flaws.
- 4.2 Set the temperature of the low temperature chamber to – 25 °C and wait until the pre-set temperature is steady.
- 4.3 Place a specimen container into the low temperature chamber for 4 hours.
- 4.4 Check if any breakage, cracks and flaws occurred in the container after the low temperature exposure.
- 4.5 For each sample, test three replicates.

**5. Results**

Check if there are any cracks in the three tested specimens. If more than one test specimen crack, then the sample has failed the physical test.

**6. References**

1. JIS S2029, Plastic Table Wares, Japanese Industrial Standards, Japanese Standards Association.
2. GB 18006.1-1999, General Specification for Single Use and Degradable Lunch Container and Drinking Set, China National Standards, China State Bureau of Quality and Technical Supervision (CSBTS).