

**Tests According to Standards for Apparatus and Container-Packages Made of Rubber  
(Notification No. 370, issued by the Ministry of Health and Welfare of Japan, dated in 1959)**

Japan Food Research Laboratories

Tax excluded

No.	Materials	Conditions	Representative Price(JPY)
1	Rubber utensils (except nursing utensils) and containers /packagings	1 Condition for use and 3 solvents for Evaporation residue.	Silicone rubber 39,000~ other rubber 33,000~
2	Nursing utensils		Silicone 39,000 other rubber 33,000

**PRICE LIST**

Tax excluded

	Condition for use	Elution condition			Unit Price (JPY)	1. Rubber utensils (except nursing utensils) and containers /packagings	2. Nursing utensils
		Solvent	Temp.	Time			
<b>Material Test</b>							
<b>Cadmium and Lead</b>							
Silicone rubber *1					16,000	✓	✓
Other rubber					10,000		
2-Mercaptoimidazole *2					12,000	✓	
<b>ElutionTest</b>							
Phenol	100°C <	Water	95°C	30 min	5,000	✓	
	100°C ≥	Water	60°C	30 min	5,000	✓	
		Water	40°C	24 hr	5,000		✓
Formaldehyde	100°C <	Water	95°C	30 min	6,000	✓	
	100°C ≥	Water	60°C	30 min	6,000	✓	
		Water	40°C	24 hr	6,000		✓
Zinc	100°C <	4% AA	95°C	30 min	5,000	✓	
	100°C ≥	4% AA	60°C	30 min	5,000	✓	
		Water	40°C	24 hr	5,000		✓
Heavy metals	100°C <	4% AA	95°C	30 min	3,000	✓	
	100°C ≥	4% AA	60°C	30 min	3,000	✓	
		4% AA	40°C	24 hr	3,000		✓
<b>Evaporation residue *3</b>							
Fats, oils and fatty foods		20% ethanol	60°C	30 min	4,000	✓	
Alcoholic beverages							
pH over 5	100°C <	Water	95°C	30 min	4,000	✓	
	100°C ≥	Water	60°C	30 min	4,000	✓	
pH 5 or less	100°C <	4% AA	95°C	30 min	4,000	✓	
	100°C ≥	4% AA	60°C	30 min	4,000	✓	
		Water	40°C	24 hr	4,000		✓
<b>Required amounts of test samples for Material Tests(at least)</b>						6g	
<b>Required amounts of test samples for Elution Tests(at least) (one sheet : 210mm x 297mm, A4 size)</b>						1 or more sheets (A4 size)	More than 5 pieces (10g / 1 piece)

\*1 To confirm whether it is silicone rubber or not, the identification test is available; JPY4,000 (tax-excluded)

\*2 Applied to only rubber products that contain chlorine.

Qualitative test of chlorine : JPY2,000 (tax-excluded)

\*3 For implements, use water as leaching solution.

For containers and packaging, leaching solutions must be chosen according to the type of foods.

4% acetic acid: 4% AA

**STANDARDS**

	1. Rubber utensils (except nursing utensils) and containers /packagings	2. Nursing utensils
<b>Material Test</b>		
Cadmium and Lead	Not more than 100 µg/g	Not more than 10 µg/g
2-Mercaptoimidazole*2	Peak of 2-Mercaptoimidazole must not be found	-
<b>ElutionTest</b>		
Phenol	Not exceed the absorbance of the standard solution (5 µg/ml or less)	Not exceed the absorbance of the standard solution (5 µg/ml or less)
Formaldehyde	Not darker in color than the contrast solution (about 4 µg/ml or less)	Not darker in color than the contrast solution (about 4 µg/ml or less)
Zinc	Not exceed the absorbance of the standard solution (15 µg/ml or less)	Not exceed the absorbance of the standard solution (1 µg/ml or less)
Heavy metals	Not darker in color than the contrast solution (Not more than 1 µg/ml (as Pb))	Not darker in color than the contrast solution (Not more than 1 µg/ml (as Pb))
Evaporation residue	Not more than 60 µg/ml	Not more than 40 µg/ml