

Tests According to Standards for Apparatus and Container-Packages Made of Metal Can

(Notification No. 370, issued by the Ministry of Health and Welfare of Japan, dated in 1959)

Final revision by Notification No.380 (2020)

Cans for dried foods (excepting for Fats, oils and fatty foods) is exempt from this standard.

Test parameter	Standard		Leaching condition		Unit Price (JPY)	Sample amount
			Condition for use $\leq 100^{\circ}\text{C}$	Condition for use $100^{\circ}\text{C} <$		
ElutionTest *1						
Arsenic, Cadmium and Lead	$\text{pH}5 <$	Not exceed the absorbance of the standard solution •Arsenic(as As_2O_3) : 0.2 $\mu\text{g}/\text{mL}$ or less •Cadmium: 0.1 $\mu\text{g}/\text{mL}$ or less •Lead: 0.4 $\mu\text{g}/\text{mL}$ or less	Water 60°C , 30min	Water 95°C , 30min	19000	100cm^2
	$\leq \text{pH}5$		0.5% citric acid 60°C , 30分	19000	100cm^2	
Phenol	Not exceed the absorbance of the standard solution (5 $\mu\text{g}/\text{mL}$ or less)		Water 60°C , 30min	Water 95°C , 30min	5500	150cm^2
Formaldehyde	Not darker in color than the contrast solution (about 4 $\mu\text{g}/\text{mL}$ or less)				6000	
Evaporation residue	Fats, oils and fatty foods	30 $\mu\text{g}/\text{mL}$ or less *2	Heptane 25°C , 1hour		7000	$450\text{cm}^2/\text{each solvent}$
	Alcoholic beverages		20% ethanol 60°C , 30min		4500	
	$\text{pH} 5 <$		Water 60°C , 30min	Water 95°C , 30min	4500	
	$\leq \text{pH} 5$		4% acetic acid 60°C , 30min		4500	
Epichlorohydrin	Not larger than the peak area of the standard solution (0.5 $\mu\text{g}/\text{mL}$ or less)		Pentane 25°C , 1hour		13000 *3	80cm^2
Vinyl chloride	Not larger than the peak area of the standard solution (0.05 $\mu\text{g}/\text{mL}$ or less)		Ethanol 5°C or less, 24hours		17000	80cm^2

◆ In case that a top lid, a bottom lid or a cylindrical body is NOT coated with synthetic resin, arsenic, cadmium and lead tests are required.

However, In case that some part of a top lid, a bottom lid or a cylindrical body is coated with synthetic resin, all the parameters above are required to be tested for coated parts.

*1: Method of elution

Samples which can be filled with solvent. (Volume $\leq 1000\text{mL}$)	Leached by filling up the sample with solvents.
Samples which can be filled with solvent.(Volume $> 1000\text{mL}$)	Eluted by soaking one side of the sample in the solvent. ($2\text{mL}/\text{cm}^2$)
Samples which can not be filled with solvent.	

*2 : In case where the samples is a can that has been coated on the inside with a coating whose main raw material is natural oils or fats and the content of zinc oxide in the coating is greater than 3%:

•Evaporation residue (solution: Heptane) : no more than 90 $\mu\text{g}/\text{mL}$

•Additionally, if the amount of evaporation residue is more than 30 $\mu\text{g}/\text{mL}$ when using water as leaching solution:

Chloroform solubles : no more than 30 $\mu\text{g}/\text{mL}$

*3: When the sample can be filled with solvent and whose volume is over 500mL and less than 1,000mL ($500\text{mL} < \text{Volume} \leq 1000\text{mL}$), JPY2000 is added as extra solvent charge.