

## Food hoses and applicable specifications

### Food sanitation law (Announcement No. 370 by the Ministry of Health and Welfare)

		Descriptions of tests	Specifications				
			PVC		Polyethylene (PE) and Polypropylene (PP)	Nylon (PA)	
			Utensils or container packages that contact fatty foods				
			JHP specifications				
		Announcement No.595	Announcement No.267	Announcement No.595	Announcement No.595		
General specifications	Materials	Lead	100 µg/g or less	-	100 µg/g or less	100 µg/g or less	
		Cadmium	100 µg/g or less	-	100 µg/g or less	100 µg/g or less	
		Bis phthalate (2-ethylhexyl)	-	Do not use.(Less than 0.1%)	-	-	
	Elution	Precious metals	1 µg/m or less	-	1 µg/m or less	1 µg/m or less	
		Potassium permanganate consumed	10 µg/m or less	-	10 µg/m or less	10 µg/m or less	
Individual specifications	Material test	Dibutyltin compound	50 µg/g or less	-	-	-	
		Cresol phosphoric acid ester	1000 µg/g or less	-	-	-	
		Polyvinyl chloride	1 µg/m or less	-	-	-	
	Elution test	Evaporation residue	heptane	150 µg/m or less	-	150 µg/m or less	30 µg/m or less
			20% ethanol	30 µg/m or less	-	30 µg/m or less	
			Water		-		
		4% acetic acid	-				
Caprolactam	20% ethanol	15 µg/m or less	-	-	15 µg/m or less		

### Outline of the specifications

	Announcement and name of the specifications	Descriptions	Target food products
Food sanitation law	Announcement No.595 by the Health, labour and Welfare Ministry in 2011	Utensils or container packages made of synthetic resin	Fatty foods, alcoholic beverages, and other food products
JHP specifications	Established by Japan Hygienic PVC Association (JHPA)	Self-imposed control of the food sanitation for vinyl chloride resin products	

### Food sanitation law (Announcement No. 595 by the Ministry of Health and Welfare)

Material test		
2-mercaptoimidazole	Pb	Cd
ND(conducted for chlorinated rubbers)	100 µg/g or less	100 µg/g or less

Our accepted products	Elution condition	Elution test						
Silicone hose	The test is conducted by soaking in an immersion solution of 2ml per 1cm <sup>2</sup> in 60°C for 30 minutes, and the resulted solution is studied (for the products to be used in the temperature of 100 degrees or more, they are soaked in 95°C for 30 minutes).	Phenol	Formic aldehyde	Zn	Precious metals	Evaporation residue		
		Water	Water	4% acetic acid	4% acetic acid	Water	4% acetic acid	20% ethanol
		5 µg/ml or less	Negative	15 µg/ml or less	1 µg/ml or less	Food and water exceeding PH5	Food of below PH5	Alcoholic beverages and fatty foods
60 µg/ml or less								

### Our approved products and test menus

Foods Hose	Announcement and general application	Descriptions	Target foods	Specifications standard			
Pure Foods Hose Pure Foods Spring Hose	Food sanitation law of the Ministry of Health, Labour and Welfare	Announcement No.267 (2002)	Utensils or container packages made of vinyl chloride resin	Fatty foods	Materials and elution test The compounding agent "Bis phthalate (2-ethylhexyl)" is below the standard value. Content: 0.1% or less Elution amount: 1µg/ml or less (immersion condition: 25°C for one hour)		
Pure Foods Hose Pure Foods Spring Hose Heat-Resistant Eco Hose			Announcement No.595 (2011)	Utensils or container packages made of synthetic resin		Fatty foods	In the specifications test, elution amount is 150 µg/ml or less in the condition where the heptane is used for the immersion solution in 25°C for an hour.
				Alcoholic beverages		In the specifications test, elution amount is 30 µg/ml or less in the condition where the 20% ethanol is used for the immersion solution in 25°C for 30 minutes.	
Silicone Hose	Announcement No.595 (2011)	Utensils or container packages made of rubbers	Other foods	In the specifications test, elution amount is 30 µg/ml or less in the condition where the 4% acetic acid and water are used for the immersion solution in 60°C for 30 minutes.			
			Fatty foods	In the specifications test, elution amount is 60 µg/ml or less in the condition where the 20% ethanol is used for the immersion solution in 60°C for 30 minutes.			
			Alcoholic beverages	In the specifications test, elution amount is 60 µg/ml or less in the condition where the 20% ethanol is used for the immersion solution in 60°C for 30 minutes.			
Other foods	In the specifications test, elution amount is 60 µg/ml or less in the condition where the 4% acetic acid and water are used for the immersion solution in 60°C for 30 minutes (if the operating temperature exceeds 100°C, they must be 95°C for 30 minutes).						

Penalty: Sentence of six months or less, or fine of 300,000 yen or less (applicable for both provider and user)

Hoses are regarded as one of the utensils. For the food sanitation law, only the provision, "utensils or container packages that contact foods or food additives", is applicable.

JHP specifications (self-imposed control on the food sanitation for vinyl chloride resin products) have following meanings:

\* JHPA(Japan Hygienic PVA Association) voluntarily defines the material list (positive list) which can be used for PVC products, specifications of the products, and test method (applying the announcement of the Health and Welfare Ministry based on the food sanitation law) in order to protect the health and safety of Japanese citizens with the view of conforming to the food sanitation law.

\* Health and Welfare Ministry announcement No.595

According to the Notice of the Ministry of Health and Welfare No. 85, April 1st in 1986. The Notice of the Ministry of Health and Welfare No. 20 prescribes only for nursing equipments as Rubber Products so No.85 was newly prescribed for the whole field of rubber products as below but due to the revision of the test method, No.595 was prescribed in 2012.