

# Bumpers with Metal Washer

Urethane, Antistatic Polyurethane, Rubber

MISUMI original product. Baked Metal Washer, Urethane and Rubber.

L Selectable	L Configurable	Urethane, Rubbers			Washer Material	
		M Material	Color	H Hardness		
AYSK	AYFS	Ether Type Polyurethane	Black	Shore A95	SUS304	
AYHK	AYFH					Shore A90
AYMK	AYFM					Shore A70
AYLK	AYFL	Ester Type Polyurethane	Black	Shore A50		
-	AYFY					Shore A30
-	AYFHE					Shore A90
-	AYFME	Antistatic Polyurethane	Gray	Shore A70		
-	AYFLE					Shore A50
-	RBFN	Nitrile Rubber (NBR)	Black	Shore A70		
-	RBFU					Shore A57
-	RBFS	Silicon Rubber (SI)	Light Gray	Shore A70		
-	RBFF				Shore A80	

\* The washer thickness of RBF is 2mm.

Ⓜ Hanenaito® is a registered trademark of Naigai Rubber Industry Co., Ltd.

## L Selectable (Urethane)

Part Number Type	D	L Selection	(M) Applicable Screw	d1	d2	V	Unit Price									
							L10	L15	L20	L25	L30	L40	L50			
AYSK (x1.1) AYHK (x1.0) AYMK (x1.1) AYLK (x1.1) ( ) Material Multiplier	12	10	M3	11	6	3										
	15	10 15 20	M4	14	8	4										
	20	10 15 20 25	M5	19	9.5	5										
	25	10 15 20 25 30	M6	24	11	6										
	30	15 20 25 30 40	M8	29	14	8										
40	25 30 40 50	M10	39	17	10											

## L Configurable (Urethane)

Part Number Type	D	1mm Increment	(M) Applicable Screw	d1	d2	V	Unit Price		
							L5-40	L41-60	L61-80
AYFS (x1.1) AYFH (x1.0) AYFM (x1.1) AYFL (x1.0) AYFY (x1.3) AYFHE (x1.2) AYFME (x1.2) AYFLE (x1.4) ( ) Material Multiplier	12	5-80	M3	11	6	3			
	15		M4	14	8	4			
	20		M5	19	9.5	5			
	25		M6	24	11	6			
	30		M8	29	14	8			
40	M10	39	17	10					

The price of this product is the unit price shown in the table multiplied by material multiplier.

## Characteristic Values of Antistatic Urethane

Specific Volume Resistivity	2.1x10 <sup>9</sup> Ω · cm
Surface Resistivity	4.0x10 <sup>9</sup> Ω

(Conditions: Temperature 30°C Humidity 60%)  
Ⓜ All other properties are equal to those of urethane of the same hardness.

## L Configurable (Rubber)

Part Number Type	D	1mm Increment	(M) Applicable Screw	d1	d2	V	Unit Price			
							RBFN	RBFU	RBFS	RBFF
RBFN RBFU RBFS RBFF	15	5-30	M4	14	8	4				
	20		M5	19	9.5	5				
	25		M6	24	11	6				
	30		M8	29	14	8				

Ordering Example: Part Number - L

AYSK12 - 10

AYFY25 - 52

# Urethane / Rubber Baked Bumpers

Collar Baked Type, Threaded Type

Collar Baked Type can be easily mounted as there is no backlash which often arises from tolerance between urethane and collar.

Threaded Bumpers contribute to reduced assembly time, improved tightening force, and save space by integrating conventional 3 parts (counterbored bumper, screw and collar) into a single part.

### Collar Baked Type

Type	Material		Hardness	Color
	Collar	Urethane		
AZKSS AZKHS AZKMS AZKLS	SUS304	Ether Polyurethane	Shore A95	Natural Color
		Ester Polyurethane	Shore A90	
	Ether Polyurethane	Shore A70		
	Ester Polyurethane	Shore A50		

## L Selectable

Part Number Type	D	L Selection	M (Coarse)	V	d	d2	T	H	Unit Price			
									AZKSS	AZKHS	AZKMS	AZKLS
Collar Baked Type	15	12 15	M3	7.5	3.5	5.5	2	5				
AZKSS (Shore A95)	20	15 20	M4	8.5	4.5	6.5						
AZKHS (Shore A90)	25	20 25	M5	10	5.5	8						
AZKMS (Shore A70)	25	20 25	M6	12	6.6	9						
AZKLS (Shore A50)			M8	14.5	9	11.5						

Ordering Example: Part Number - L - M

AZKSS15 - 15 - M3

### Product Features

- Eliminates backlash which arises from tolerance between urethane and collar.
- Reduced parts count leads to reduction in time and labor for press-fitting and management.

## Threaded Type

Type	Material		Hardness	Color		
	L Selectable	L Configurable				
USBKS UHBKS UMBKS ULBKS	Ether Polyurethane	Shore A95	Shore A90	Natural Color		
					Ester Polyurethane	Shore A70
						Shore A50
UEHBKS UEMBKS	Abrasion Resistant Urethane	Shore A90	Shore A70	Dark Brown		
					Shore A70	
NBBKS NSBKS	Nitrile Rubber (NBR)	Shore A70	Shore A32	Black		
					Low Elasticity Rubber (Hanenaito®)	

Material of Screw Part: Ⓜ Material: SUS304 Equivalent Ⓢ Surface Treatment: None

## L Selectable

Part Number Type	D	L Selection	M (Coarse)	B	A	V	E	m	Unit Price			
									U_BKS	UE_BKS	NBBKS	NSBKS
USBKS (Ether Polyurethane Shore A95)	12	10 15	M4 x0.7	3	7	5	4	6				
			M6 x1.0	5	10	8	6	10				
UHBKS (Ether Polyurethane Shore A90)	15	10 15 20	M5 x0.8	4	9	7	5	8				
			M8 x1.25	6	13	9	8	12				
UMBKS (Ester Polyurethane Shore A70)	20	20 25 30	M6 x1.0	5	10	8	6	10				
			M10 x1.5	8	16	11	10	15				
ULBKS (Ester Polyurethane Shore A50)	25	20 25 30	M6 x1.0	5	10	8	6	10				
			M8 x1.25	6	13	9	8	12				
UEHBKS (Abrasion Resistant Urethane Shore A90)	30	20 25 30	M6 x1.0	5	10	8	6	10				
			M10 x1.5	8	16	11	10	15				
UEMBKS (Abrasion Resistant Urethane Shore A70)	30	20 25 30	M6 x1.0	5	10	8	6	10				
			M8 x1.25	6	13	9	8	12				
NBBKS (Nitrile Rubber Shore A70)	30	20 25 30	M6 x1.0	5	10	8	6	10				
			M8 x1.25	6	13	9	8	12				
NSBKS (Hanenaito® Shore A32)	30	20 25 30	M6 x1.0	5	10	8	6	10				
			M10 x1.5	8	16	11	10	15				

## L Configurable

Part Number Type	D	1mm Increment	(Coarse) M	B	A	V	E	m	Unit Price			
									U_BYS	UE_BYS	NBBYS	UNBYS
USBYS (Ether Polyurethane Shore A95)	12	5-50	M4 x0.7	3	7	5	4	6				
			M6 x1.0	5	10	8	6	10				
UHBYS (Ether Polyurethane Shore A90)	15	7-50	M5 x1.0	4	9	7	5	8				
			M8 x1.25	6	13	9	8	12				
UMBYS (Ester Polyurethane Shore A50)	20	9-50	M6 x1.0	5	10	8	6	10				
			M10 x1.5	8	16	11	10	15				
UEHBYS (Abrasion Resistant Urethane Shore A90)	25	11-50	M6 x1.0	5	10	8	6	10				
			M8 x1.25	6	13	9	8	12				
UEMBYS (Abrasion Resistant Urethane Shore A70)	30	11-50	M6 x1.0	5	10	8	6	10				
			M8 x1.25	6	13	9	8	12				
NBBYS (Nitrile Rubber Shore A70)	30	11-50	M6 x1.0	5	10	8	6	10				
			M8 x1.25	6	13	9	8	12				
UNBYS (Hanenaito® Shore A32)	30	11-50	M6 x1.0	5	10	8	6	10				
			M10 x1.5	8	16	11	10	15				

L dimensions of Nitrile Rubber (NBBYS) and Low Elasticity Rubber (UNBYS) are up to 30.

Ordering Example: Part Number - L - M

USBYS12 - 10 - M4

## Product Features

Before: Bumper, Screw, Collar (3 parts) With M8 Screw Space for 25mm O.D. is required.

Threaded Urethane Bumper 1 pc.

- Reduced Parts Count → Reduced Assembly Time
- Increased Tightening Force
- Space Saving

Installable in a Space for a Bumper with 20mm O.D.

Space Saving Approx. 20%

Threaded Urethane Bumper