

Urethane Bumpers

Configurable

Alteration VC is now available to alter the I.D. to negative tolerance.

Urethane Bumpers – Configurable

Standard / Precision	Through Hole Type	No Hole Type	Material	Hardness	Color Photo No.
Standard Grade	AXFS	CXFS	General Urethane Ether Polyurethane	Shore A95	(1) Natural Color / Black
	AXFH	CXFH		Shore A90	
	AXFM	CXFM	General Urethane Ester Polyurethane	Shore A70	
	AXFL	CXFL		Shore A50	
	AXFY	CXFY	Shore A30	(2) Gray	
	AXFHE	CXFHE	Antistatic Polyurethane		Shore A90
	AXFME	CXFME			Shore A70
	AXFLE	CXFLE	Shore A50		
	AXFAN	CXFAN	Low Rebound Urethane	Shore A70	(3) Gray
	AXCES	CXCES		Shore A95	
Precision Grade	AXCEH	CXCEH	Ceramic Urethane	Shore A90	(4) Gray
	AXCEM	CXCEM		Shore A70	
	AAFS	CAFS	General Urethane Ether Polyurethane	Shore A95	(1) Natural Color / Black
	AAFH	CAFH		Shore A90	
AAFM	CAFM	General Urethane Ester Polyurethane	Shore A70		

Standard Grade

Through Hole Type

D	Tolerance
6-40	±0.2
41-60	±0.3
61-100	±0.4

No Hole Type

V	Tolerance
30 or Less	±0.2
31-86	±0.5

L	V
L ≤ 30	V ≤ D - 4
L > 30	V ≤ D - 6

Precision Grade

Through Hole Type

L	Tolerance
10-100	±0.1
101-300	±0.2

No Hole Type

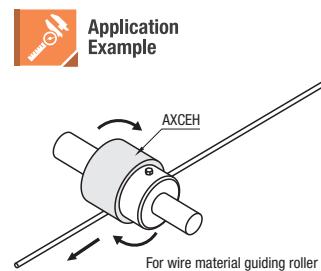
L	V
L ≤ 30	V ≤ D - 4
L > 30	V ≤ D - 6

Part Number	1 mm Increment			C
	D	L	V (For Through Hole Type Only)	
Standard Grade				
Through Hole Type				
No Hole Type				
AXFS CXFS	6-15		2-11	N Natural Color B Black
AXFH CXFH	16-30		4-26	
AXFM CXFM				
AXFL CXFL				
AXFY CXFY	31-45		6-41	
AXFHE CXFHE				
AXFME CXFME				
AXFLE CXFLE	46-60	10-300	6-56	
AXFAN CXFAN				
AXCES CXCES	61-80		6-76	
AXCEH CXCEH				
AXCEM CXCEM				
Precision Grade				
Through Hole Type				
No Hole Type				
AAFS CAFS	81-100		6-86	
AAFH CAFH				
AAFM CAFM				

Ⓞ The thickness of Through Hole Type (D-V)/2 is restricted by L. Refer to the table (Thickness Condition) in the drawing. When V=2, L≤50.
 Ⓞ When L≥201, V≥8

Part Number Alterations
 Part Number - D - L - V - C - (VC)
 AXFH - D20 - L10 - V10 - N - VC

Alterations	Inner Dia. Negative Tolerance		
	Applicable Type	Hardness	Tolerance
	AXFH	Shore A90	V-0.1-0.4
	AXFM	Shore A70	V-0.2-0.6
AXFL	Shore A50	V-0.6-1.0	
Code	VC		
Spec.	Changes V to negative tolerance. Ⓞ Only applicable to AXFH, AXFM and AXFL. Ⓞ Applicable to D≤40 only. Ⓞ Applicable to D≥20 only.		



Characteristic Values of Antistatic Urethane

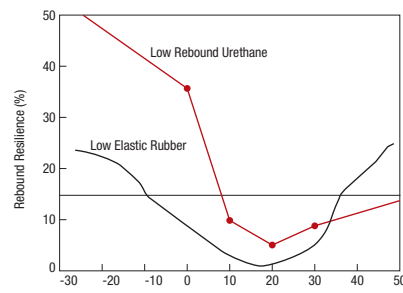
Specific Volume Resistivity	2.1 x 10 ⁸ Ω·cm
Surface Resistivity	4.0 x 10 ⁹ Ω

Compression Set of Low Rebound Urethane

Low Rebound Urethane	1%
Urethane (Shore A70)	25%

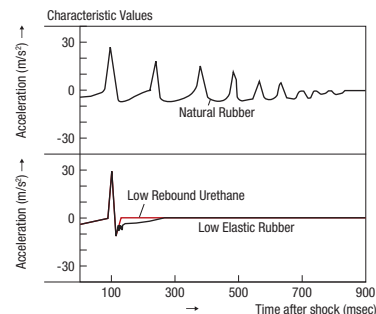
(Conditions: Temperature 30°C Humidity 60%)
 Ⓞ All other properties are equal to those of urethane of the same hardness.
 * The above data is measured at room temperature 23°C.
 * 70°C x 24 H 25% Compression

Impact Resilience Variation by Temperature of Low Elasticity Rubber / Low Rebound Urethane



Ⓞ For Low Elasticity Rubber Products, refer to P.2584-2585.

Shock Absorption Comparison of Low Elasticity Rubber / Low Rebound Urethane



Urethane / Rubber Bumpers with Screw

L Dimension Standard & Configurable

Urethane / Rubber Bumpers with Screw

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

Material: 302 HQ Stainless Steel
Surface Treatment: None
 Ⓞ Added spec. for Urethane type.

L Selectable

Part Number	Type	D	L Selection		M (Coarse Thread)	B	A	V	E	m	Available Types								
			U_BKS	UE_BKS							NBBKS	NSBKS							
USBKS UHBKS UMBKS ULBKS UEHBKS UEMBKS NBBKS NSBKS	Ether Polyurethane Ether Polyurethane Ester Polyurethane Ester Polyurethane Abrasion Resistant Urethane Abrasion Resistant Urethane Nitrile Rubber Hanenaito®	Shore A95 Shore A90 Shore A70 Shore A50 Shore A90 Shore A70 Shore A70 Shore A32	12	10 15	M4 x 0.7	3	7	5	4	6	•	•	•	•					
			15	10 15 20	M4 x 0.7	3	7	5	4	6	•	•	•	•					
			20	20 25 30	M5 x 0.8	4	9	7	5	8	•	•	•	•					
			25	20 25 30	M8 x 1.25	6	13	9	8	12	•	•	•	•					
30	M6 x 1.0	5	10	8	6	10	15	•	•	•	•	•	•						
														M8 x 1.25	6	13	9	8	12
														M10 x 1.5	8	16	11	10	15

L Dimension Configurable Type

Part Number	Type	D	L		M (Coarse Thread)	B	A	V	E	m
			1 mm Increment	(Coarse Thread)						
USBYS	Ether Polyurethane	Shore A95	12	5-50	M4 x 0.7	3	7	5	4	6
UHBYS	Ether Polyurethane	Shore A90	15	7-50	M6 x 1.0	5	10	8	6	10
UMBYS	Ester Polyurethane	Shore A70	20	9-50	M8 x 1.25	6	13	9	8	12
ULBYS	Ester Polyurethane	Shore A50	25	11-50	M10 x 1.5	8	16	11	10	15
UEHBYS	Abrasion Resistant Urethane	Shore A90	30		M10 x 1.5	8	16	11	10	15
UEMBYS	Abrasion Resistant Urethane	Shore A70								
NBBYS	Nitrile Rubber	Shore A70								
UNBYS	Hanenaito®	Shore A32								

Ⓞ L dimension of Nitrile Rubber (NBBYS) and Low Elasticity Rubber (UNBYS) is up to 30.

Part Number Example
 Part Number - L - M
 USBYS12 - 10 - M4