

Counterbored Urethane Bumpers, Collars for Counterbored Bumpers

Configurable Type

Counterbored Urethane Bumpers Configurable Type



Type	Material	Hardness	Photo No., Color
Standard Grade			
Precision Grade			
AZFS	Standard Urethane	Shore A95	① Natural Color ② Black
AZFH AZAH	(Ether Urethane)	Shore A90	
AZFM AZAM	Standard Urethane (Ester Urethane)	Shore A70	③ Gray
AZFL		Shore A50	
AZFY	Antistatic Polyurethane	Shore A30	④ Gray
AZFHE		Shore A90	
AZFME	Low Rebound Urethane	Shore A70	⑤ Brown
AZFLE		Shore A50	
AZFAN	Heat Resistant Urethane	Shore A70	⑥ Beige
AZFH		Shore A90	
ZVULFH	Super Abrasion Resistant Urethane Vulkollan®	Shore A92	⑦ Dark Brown
ZVULFM		Shore A68	
AZEFH	Abrasion Resistant Urethane	Shore A90	
AZEFM		Shore A70	

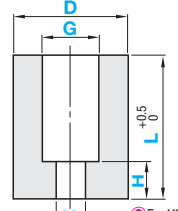
Characteristic Values of Antistatic Urethane

Specific Volume Resistivity	2.1x10 ⁸ Ω·cm
Surface Resistivity	4.0x10 ⁸ Ω

(Conditions: Temperature 30°C Humidity 60%)

Ⓜ All other properties are equal to those of urethane of the same hardness.

Standard Grade



Ⓜ For V2 H≤50

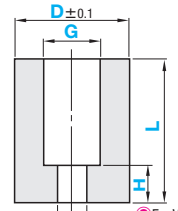
D Tolerance

Dimension	D Tolerance
50 or Less	±0.2
51-60	±0.3
61-100	±0.5

V, H, G Tolerances

Dimension	Tolerance		
	V	H	G
30 or Less	±0.2	±0.2	±0.2
31-90	±0.3	±0.5	±0.3
91~	±0.5	-	-

Precision Grade



Ⓜ For V2 H≤50

L Tolerance

Dimension	L Tolerance
6-100	+0.2
101-200	+0.3

V, H, G Tolerances

Dimension	Tolerance	
	V Tolerance	H, G Tolerance
2-50	±0.15	±0.1
51~	±0.15	±0.15

Ⓜ The tolerances are verified at 23°C±2 and 40-80% humidity.

Ⓜ Color is selectable only for ether and ester polyurethane.

Part Number	D	1mm Increment				Color Selection	Unit Price																		
		V	H	G	L		AZFS	AZFM	AZFH	AZFL	AZFY	AZAH	AZAM	AZFHE	AZFME	AZFAN	AZFLE	ZVULFH	ZVULFM	AZEFH	AZEFM	AZFH	AZHH		
Standard Grade, Standard Urethane	8-15 (1mm Increment)	2-10	3≤H<L	3-90 When L-H≤30 G≤D-4	6-40	N (Natural Color)																			
AZFS (Shore A95)																									
AZFH (Shore A90)					41-60																				
AZFM (Shore A70)					61-80																				
AZFL (Shore A50)	16-30 (1mm Increment)	2-16	3≤H<L	3-90 When L-H>30 G≤D-6	6-40	B (Black)																			
AZFY (Shore A30)																									
AZFAN (Shore A70)					41-60																				
Standard Grade Antistatic Polyurethane	31-45 (1mm Increment)	5-25	3≤H<L	3-90 When L-H>30 G≤D-6	10-40	B (Black)																			
AZFHE (Shore A90)																									
AZFME (Shore A70)					61-80																				
AZFLE (Shore A50)					101-150																				
Standard Grade Heat Resistant Urethane	46-60 (1mm Increment)	5-30	3≤H<L	3-90 When L-H>30 G≤D-6	25-40	B (Black)																			
AZFH (Shore A90)																									
Standard Grade Vulkollan®	61-80 (1mm Increment)	5-70	3≤H<L	3-90 When L-H>30 G≤D-6	41-60	B (Black)																			
ZVULFH (Shore A90)																									
ZVULFM (Shore A70)					61-80																				
Standard Grade Abrasion Resistant Urethane	101-150	5-70	3≤H<L	3-90 When L-H>30 G≤D-6	101-150	B (Black)																			
AZEFH (Shore A90)																									
AZEFM (Shore A70)					25-40	B (Black)																			
Precision Grade, Standard Urethane	85-100 (5mm Increment)				41-60		B (Black)																		
AZAH (Shore A90)					61-80	B (Black)																			
AZAM (Shore A70)					81-100		B (Black)																		
					101-150	B (Black)																			
					151-200		B (Black)																		
					41-60	B (Black)																			
					61-80		B (Black)																		
					81-100	B (Black)																			
					101-150		B (Black)																		
					151-200	B (Black)																			

Ordering Example: Part Number - D - V - H - G - L - Color Selection
 AZFS - D22 - V5 - H10 - G10 - L38 - N

Collars for Counterbored Bumpers



Type	Material	Surface Treatment
AZC	S45C	Black Oxide
AZM	Equivalent	Electroless Nickel Plating
AZS	SUS304	-

RoHS 10

Part Number	Type	No.	d	D	H	T	L	h	Unit Price		
									AZC	AZM	AZS
AZC AZM AZS	3	3.5	5.5	5	7	7.5	7	7.5			
	4	4.5	6.5						8.5		
	4A	4.5	6.5	7	9	10	10	10			
	5	5.5	8						12		
	6	6.6	9	8	10	12	14.5	12			
	8	9	11.5						8		
	8A	9	11.5	6	8	14.5	12	14.5			
	10	11	14	10	3	13	17	17			

Ⓜ No.10 is for AZC only.

Ordering Example: Part Number
 AZC4A