

# Urethane / Rubbers

## Spherical Tip, Tapered Tip

Bumpers with spherical and tapered tips are available in a short delivery time. Hole length is configurable for Through Hole Type.

**Spherical Tip**

Through Hole Type	No Hole Type	Material	Hardness	Color
UTRS	CXTRS	Ether Polyurethane	Shore A95	Natural Color
UTRH	CXTRH		Shore A90	
UTRM	CXTRM		Shore A70	
UTRL	CXTRL	Ester Polyurethane	Shore A50	Natural Color
UBFN	CXBFN		Nitrile Rubber (NBR)	
UBFS	CXBFS	Silicon Rubber	Shore A70	Light Gray
UBFU	CXBFU	Low Elasticity Rubber (HANENITE® GP-35L)	Shore A35	Black
UBFF	CXBFF	Fluororubber	Shore A80	Black

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**V Tolerance**

V	Tolerance
30 or Less	±0.2
31~46	±0.5

**Thickness Condition**

L	V
L≤30	V≤D-4
L>30	V≤D-6

Conditions of L  
L≥D/2

For Through Hole Type, through hole will be machined when VL dimension is not specified. Specification of VL dimension is required. Through hole can be provided, but the bore cannot be stopped at SR.

### Urethane Configurable Type

Part Number (x Material Multiplier)	1mm Increment				Unit Price							
	D	L	Through Hole Type		Through Hole Type				No Hole Type			
			V	VL	L10-20	L21-30	L31-40	L41-50	L10-20	L21-30	L31-40	L41-50
Through Hole Type No Hole Type	6~15	2~11										
(Shore A95) UTRS CXTRS (x1.4)	16~20	4~16										
(Shore A90) UTRH CXTRH (x1.0)	21~30	6~26										
(Shore A70) UTRM CXTRM (x1.2)	31~40	6~36										
(Shore A50) UTRL CXTRL (x1.4)	41~50	6~46										

The thickness of Through Hole Type (D-V)/2 is restricted by L. Refer to the table (Thickness Condition) in the drawing.

### Rubber Configurable Type

Part Number	1mm Increment				Unit Price			
	D	L	Through Hole Type		Through Hole Type		No Hole Type	
			V	VL	L10-20	L21-30	L10-20	L21-30
Through Hole Type No Hole Type	6~15	2~11						
(Nitrile Rubber) UBFN CXBFN	16~25	7~21						
Through Hole Type No Hole Type	6~15	2~11						
(Silicon Rubber) UBFS CXBFS	16~25	7~21						
Through Hole Type No Hole Type	6~15	2~11						
(Low Elasticity Rubber) UBFU CXBFU	6~15	2~11						
Through Hole Type No Hole Type	6~15	2~11						
(Fluororubber) UBFF CXBFF	6~15	2~11						

Bumpers with tapered tips are available in a short delivery time. Hole length is configurable for Through Hole Type.

**Tapered Tip**

Through Hole Type	No Hole Type	Material	Hardness	Color
UTTS	CXTTS	Ether Polyurethane	Shore A95	Natural Color
UTTH	CXTTH		Shore A90	
UTTM	CXTTM		Shore A70	
UTTL	CXTTL	Ester Polyurethane	Shore A50	Natural Color
UTBFN	CXTBFN		Nitrile Rubber (NBR)	

**V Tolerance**

V	Tolerance
30 or Less	±0.2
31~52	±0.5

For Through Hole Type, through hole will be machined when VL dimension is not specified.

Part Number (x Material Multiplier)	1mm Increment				Unit Price				
	D	A (A≤D-2)	L	C	Through Hole Type				
					V	VL	L10-20	L21-30	L10-20
Through Hole Type No Hole Type	6~15	2~13	2~11						
(Shore A95) UTTS CXTTS (x1.4)	16~30	2~28	2~24						
(Shore A90) UTTH CXTTH (x1.0)	31~45	2~43	2~37						
(Shore A70) UTTM CXTTM (x1.2)	46~60	2~58	2~52						
(Shore A50) UTTL CXTTL (x1.4)			2~52						
(Shore A70) UTBFN CXTBFN (x1.08)			2~52						

Prices and price multiplier have been revised according to the price list integration.

Ordering Example: Part Number - D - L - V - VL  
UTRS - D20 - L40 - V10 - VL30  
CXBFU - D10 - L15

Ordering Example: Part Number - D - A - L - C - V - VL  
UTTS - D15 - A13 - L15 - C10 - V5 - VL10  
CXTTH - D20 - A14 - L30 - C15

# Urethane, Rubbers

## Piloted Type

Bumpers with pilot tip ends are available in a short delivery time.

**Standard Type (No Hole Type)**

Standard	Configurable Type	Material	Hardness	Color
DXSK	DXFS	Ether Polyurethane	Shore A95	Natural Color
DXHK	DXFH		Shore A90	Natural Color
DXMK	DXFM		Shore A70	Natural Color
DXLK	DXFL	Ester Polyurethane	Shore A50	Natural Color
-	RBKN		Nitrile Rubber (NBR)	Shore A70
-	RBKC	Chloroprene Rubber (CR)	Shore A65	Black
-	RBKU	Low Elasticity Rubber (HANENITE® GP-35L)	Shore A35	Black
-	RBKS	Silicon Rubber (SI)	Shore A70	Light Gray
-	RBKA		Shore A50	Milky White
-	RBKF	Fluororubber (FPM)	Shore A80	Black

The milky white color of silicone rubber shore A 50 is translucent.

Standard Type has no hole.

**T Tolerance**

T	Urethane	Rubber
30 or Less	±0.2	±0.3
31 ~ 50	±0.3	-

**D Tolerance**

D	Urethane	Rubber
40 or Less	±0.2	±0.5
41~60	±0.3	±0.7
61~100	±0.4	-

**C Tolerance**

C	Urethane	Rubber
40 or Less	+0.2 0	+1.0 0
41 or More	+0.3 0	+1.4 0

### Standard Type (No Hole Type)

Part Number	Type	D	V Selection	T Selection	L Selection	Unit Price			
						DXSK	DXHK	DXMK	DXLK
DXSK (Shore A95)	8	5	3 5	8 10	8 10				
	10	5 8	3 5	8 10 15	8 10 15				
	15	8 10	3 5	8 10 15 16 18 20 23 25	8 10 15 16 18 20 23 25				
	20	10 15	5 8	15 20 25 30 35 40	15 20 25 30 35 40				
	25	15 20	5 10	15 20 25 30 35 40	15 20 25 30 35 40				
	30	20 30	5 10	15 20 25 30 35 40	15 20 25 30 35 40				
40	30 40	5 10	15 20 25 30 35 40	15 20 25 30 35 40					
50	30 40	5 10	15 20 25 30 35 40	15 20 25 30 35 40					
60	30 40	5 10	15 20 25 30 35 40	15 20 25 30 35 40					

### Urethane Configurable (Hole Configurable Type)

Part Number	1mm Increment					Unit Price			
	D	V (V<D)	T	L	C	DXFS	DXFH	DXFM	DXFL
DXFS (Shore A95)	6~15	3~14	2~30	4~10	0 (No Hole)				
				11~25					
				26~40					
				41~50					
DXFH (Shore A90)	16~30	6~29	2~40	7~10	2~40				
				11~25					
				26~40					
				41~50					
DXFM (Shore A70)	31~45	10~44	5~40	7~10	10~55				
				11~25					
				26~40					
				41~50					
DXFL (Shore A50)	46~60	15~59	5~45	7~10	10~55				
				11~25					
				26~40					
				41~50					

C≤V-4 L-T≤Vx3

For Urethane Configurable Type, configurable dimension range has been shortened.

Ordering Example: Part Number - D - V - T - L - C  
DXFL - D49 - V30 - T6 - L42 - C0

### Rubber Configurable (Hole Configurable Type)

Part Number	1mm Increment					Unit Price			
	D	V (V<D)	T	L	C	RBKN	RBKU	RBKA	RBKF
RBKN (Nitrile Rubber (NBR))	6~15	3~14	2~30	4~10	0 (No Hole)				
				11~20					
				21~30					
				31~50					
RBKC (Chloroprene Rubber (CR))	16~30	6~29	2~40	7~10	2~40				
				11~20					
				21~30					
				31~50					
RBKU (Low Elasticity Rubber)	31~45	10~44	5~40	7~10	10~50				
				11~20					
				21~30					
				31~50					
RBKA (Silicon Rubber (SI))	46~60	15~59	5~45	7~10	10~50				
				11~20					
				21~30					
				31~50					
RBKF (Fluororubber (FPM))	46~60	15~59	5~45	7~10	10~50				
				11~20					
				21~30					
				31~50					

C≤V-4 L-T≤Vx3

L≤30 for RBKU, RBKS and RBKF.