

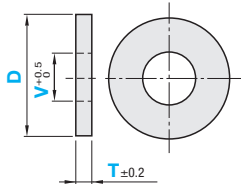
Urethane Washers

Standard, Antistatic, Heat Resistant, Vulkollan®, Abrasion Resistant, Ceramic Urethane, Adhesive

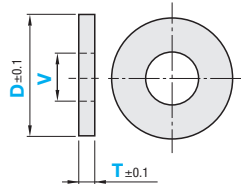
Adhesive Type is convenient for temporary fixing.



Standard Grade



Precision Grade



For Vulkollan®, see the tolerance table.

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

Standard Grade Tolerance

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

For Vulkollan®, see the table on the right.

D Tolerance (Vulkollan®)	
D	Tolerance
6~40	±0.5
41~60	±0.6
61~100	±0.7

V Tolerance ±0.3

T Tolerance (Vulkollan®)	
T	Tolerance
3~5	±0.5
5.5~10	±0.2

Precision Grade Tolerance

V Tolerance	
V	Tolerance
2~50	+0.1
51~80	+0.2

Type	Standard Grade	Precision Grade	Material	Hardness	Photo No., Color
Standard	URWS	UAWS	Standard Urethane (Ether Polyurethane)	Shore A95	① Natural Color
	URWH	UAWH		Shore A90	
	URWM	UAWM		Shore A70	
	URWL	UAWL	Standard Urethane (Ester Polyurethane)	Shore A50	③ Brown
	URHWH	UAWH	Heat Resistant Urethane (Ester Polyurethane)	Shore A90	
	UREWH	UAWH		Shore A70	
Configurable Type	URFS	UAFSN	Standard Urethane (Ether Polyurethane)	Shore A95	① Natural Color
	URFH	UAFH		Shore A90	
	URFM	UAFM	Standard Urethane (Ester Polyurethane)	Shore A70	② Gray
	URFL	UAFM		Shore A50	
	URFY	UAFM		Shore A30	
	URFHE	UAFM	Antistatic Polyurethane	Shore A90	③ Brown
	URFME	UAFM		Shore A70	
	URFLE	UAFM	Heat Resistant Urethane (Ether Polyurethane)	Shore A50	⑤ Beige
	URHFH	UAFM		Shore A90	
	VULFH	UAFM	Super Abrasion Resistant Urethane Vulkollan®	Shore A92	④ Dark Brown
	VULFM	UAFM		Shore A68	
	UREFH	UAFM	Abrasion Resistant Urethane	Shore A90	⑥ Gray
	UREFM	UAFM		Shore A70	
	URCES	UAFM	Ceramic Urethane	Shore A95	⑥ Gray
	URCEH	UAFM		Shore A90	
URCEM	UAFM	Shore A70			

For features of Ceramic Urethane, see P.389

Urethane turns yellow by aging, but physical property or characteristics remain unchanged.

For Yellow Discoloration of Urethane, see P.392.

Depending on the production lot, the side face may show marks from machining.

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

Part Number	Type	V Selection				T Selection		
		D	V	T	Selection			
Standard Grade								
URWS	(Standard Shore A95)	6	2			1	2	3
URFH	(Standard Shore A90)	8	2	3	4	1	2	3
URWH	(Standard Shore A90)	10		3	4	5	6	
URWM	(Standard Shore A70)	12			4	5	6	8
URWL	(Standard Shore A50)	15			4	5	6	8
URHWH	(Heat Resistant Shore A90)	20			5	6	8	10
UREWH	(Abrasion Resistant Shore A90)	25			5	6	8	10
UREWM	(Abrasion Resistant Shore A70)	30			5	6	8	10
Precision Grade								
UAWS	(Standard Shore A95)	35			8	10	12	16
UAWH	(Standard Shore A90)	40			8	10	12	16
UAWM	(Standard Shore A70)	50			8	10	12	16
		60			12	16	20	25

Configurable Type

Part Number	Type	D	V	T
		1mm Increment	1mm Increment	0.5mm Increment
Standard Grade				
URFS	(Standard Urethane Shore A95)	6-15	0 (No Hole)	1.0-5.0
URFH	(Standard Urethane Shore A90)			5.5-10.0
URFM	(Standard Urethane Shore A70)	16-30	2-41 (V≤D-4)	1.0-5.0
URFL	(Standard Urethane Shore A50)			5.5-10.0
URFY	(Standard Urethane Shore A30)	31-45	0 (No Hole)	1.0-5.0
URFHE	(Antistatic Polyurethane Shore A90)			5.5-10.0
URFME	(Antistatic Polyurethane Shore A70)	46-60	10-70 (V≤D-4)	1.0-5.0
URFLE	(Antistatic Polyurethane Shore A50)			5.5-10.0
Precision Grade				
UAFSN	(Standard Urethane Shore A95)	81-100	0 (No Hole)	1.0-5.0
UAFH	(Standard Urethane Shore A90)			5.5-10.0
UAFM	(Standard Urethane Shore A70)			5.5-10.0

When V=0, there is no hole. Vulkollan® is available for T=3.0 or more. For Ceramic Urethane, T=5.0 or more.



Ordering Example
Standard
 Part Number - V - T
 URWL20 - 10 - 5

Configurable Type

Part Number - D - V - T
 URFM - D19 - V3 - T4.5
 URFH - D35 - V18 - T8.0