

Ceramic Urethane Sheets

■ These MISUMI original urethane sheets are unique mixture of ceramic particles. Excel in abrasion resistance against wire, and smooth in their machined surfaces though they are low in hardness.

Type	Type		Material	Hardness	Color	Accuracy Standards
	No Adhesive	Adhesive				
Mold Surface Type	UTSCS	UTSCSA	Ceramic Urethane	Shore A95	Natural Color (Gray)	T Dimension Tolerance
	UTSCH	UTSCHA	(Ether Polyurethane)	Shore A90		
	UTSCM	UTSCMA	Ceramic Urethane	Shore A70		
	UTSCL	UTSCLA	(Ester Polyurethane)	Shore A50		
Machined Surface Type	UTSCSK	UTSCSKA	Ceramic Urethane	Shore A95		A, B Tolerance
	UTSCHK	UTSCHKA	(Ether Polyurethane)	Shore A90		
	UTSCMK	UTSCMKA	Ceramic Urethane	Shore A70		
	UTSCLK	UTSCLKA	(Ester Polyurethane)	Shore A50		

Properties **P389**

● Mold Surface Type has glossy smooth surface but not slippery. Machined Surface Type has ground surface on one side improving sliding property.

Standard

Hole Type

(Mold Surface)

(Machined Surface)

Hole Machining Details

Standard Type, Mold Surface

Part Number		1mm Increment	
Type	T	A	B
No Adhesive	2	10~500	10~500
Adhesive	3		
UTSCS	4		
UTSCH	5		
UTSCM	6		
UTSCL	8		
	10		

Standard Type, Machined Surface

Part Number		1mm Increment	
Type	T	A	B
No Adhesive	3	10~200	10~200
Adhesive	4		
UTSCSK	5		
UTSCHK	6		
UTSCMK	8		
UTSCLK	10		

Hole Type, Mold Surface

Part Number		1mm Increment (A≥B≥T)		0.5mm Increment		Screw Nominal Dia. Selection	
Type	Nominal	T	A	B	F	G	N (Through Hole) Z (Counterbored Hole)
Mold Surface Type							
	1H	2	25~500	25~500	5~495 (1H)	5~495 (1H, 2H, 3H)	3
		3					-
No Adhesive	2H	4					4
Adhesive	3H	5					5
UTSCS	4H	6					6
UTSCH	6H	8					8
UTSCM		10					10
UTSCL							

Hole Type, Machined Surface

Part Number		1mm Increment (A≥B≥T)		0.5mm Increment		Screw Nominal Dia. Selection	
Type	Nominal	T	A	B	F	G	N (Through Hole) Z (Counterbored Hole)
Machined Surface Type							
	1H	3	25~200	25~200	5~195 (1H)	5~195 (1H, 2H, 3H)	3
		4					-
No Adhesive	2H	5					4
Adhesive	3H	6					5
UTSCSK	4H	8					6
UTSCHK	6H	10					8
UTSCMK							10
UTSCLK							



Ordering Example

Standard

Part Number - A - B
UTSCLK5 - 100 - 30

Hole Type

Part Number - A - B - F - G - Screw Nominal Dia.
UTSCMK2H5 - 100 - 50 - F80 - G25 - N3

Adhesive Charge: Adhesive Type Price = Unit Price + Adhesive Charge

Adhesive Charge		Unit Price					
A	B	10~50	51~100	101~200	201~300	301~400	401~500
10~50							
51~100							
101~200							
201~300							
301~400							
401~500							

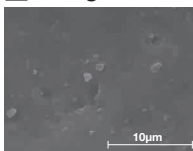
Mold Surface Type

Part Number		Unit Price					
Type	T	A	10~50	51~100	101~200	201~300	301~400
No Adhesive	2	10~50					
		51~100					
		101~200					
		201~300					
		301~400					
	4	10~50					
		51~100					
		101~200					
		201~300					
		301~400					
Adhesive	5	10~50					
		51~100					
		101~200					
		201~300					
		301~400					
	6	10~50					
		51~100					
		101~200					
		201~300					
		301~400					
Price in the Table + Adhesive Charge	8	10~50					
		51~100					
		101~200					
		201~300					
		301~400					
	10	10~50					
		51~100					
		101~200					
		201~300					
		301~400					

Machined Surface Type

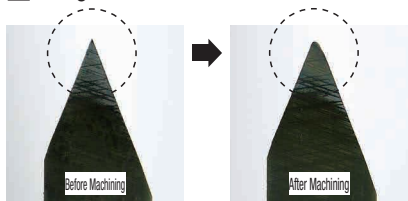
Part Number		Unit Price				
Type	T	A	10~50	51~100	101~150	151~200
No Adhesive	3	10~50				
		51~100				
	4	101~150				
		151~200				
Adhesive	5	10~50				
		51~100				
	6	101~150				
		151~200				
Price in the Table + Adhesive Charge	8	10~50				
		51~100				
	10	101~150				
		151~200				

Enlarged Photo (x5,000)



Please be advised that white section seen on the photo is ceramic powder particles occurring during the manufacturing process. These micro-particles are very fine not to cause any surface roughness even when they fall off.

Change after Ceramic Urethane is Machined



Change after ceramic urethane round bar is machined (Lathe: 600rev/min.) for 2 minutes

Taber Abrasion Test Results

Test	Material	Standard Urethane	Super Abrasion Resistant Urethane	Abrasion Resistant Urethane	Ceramic Urethane
Abrasion Test (Taber Method)		197.3	33.9	73.8	101
Abrasion Volume (mm ³)					

Abrasive wheels are applied to the sample using a fixed weight for a specified number of cycles. From the weight loss of the sample it is possible to measure the abrasion resistance of a material.

● The above values are measured examples, not guaranteed ones.

Testing Method
JIS K 7204: 1999 "Plastics - Determination of Resistance to Wear by Abrasive Wheels"
Abrasive Wheel: H-22
Load: 9.8N
Number of Strokes: 1,000
Test Parameter: 1

● The values are not guaranteed but measured ones.