

Urethane Molded Bearings

Inner Wheel Protruded

Urethane Press-Fit Bearings

■ **Features:** Can be purchased at low price and quick delivery as compared to conventional Molded Bearings.

■ **Urethane Molded Bearings**
- Inner Wheel Protruded (For Light Load)

■ **For Light Load**

UMRW (Both Sides Protruded)

UMRV (One Side Protruded)

UMRR (No Protrusion)

Operating Temperature Range: -20°C~40°C

W₁, W₂ Tolerance D20~60 $\begin{matrix} 0 \\ -0.12 \end{matrix}$
D65~80 $\begin{matrix} 0 \\ -0.15 \end{matrix}$

Ⓜ **Material**

Tire Section	Thermoplastic Ether Type Urethane (Black, Shore A95)
Wheel Section	Thermoplastic Lactone Type Urethane (Black)
Bearing	Outer Ring, Inner Ring, Balls: SUJ2 Shield: Rubber

Ⓜ Material: Polyurethane (Black)
Bearing: Steel
Ⓜ Hardness: Shore A90

Ⓜ For bearing detailed dimensions, see P.989.

■ **Urethane Molded Bearings**
- Inner Wheel Protruded (For Heavy Load)

■ **For Heavy Load**

UMRHW (Both Sides Protruded)

UMRHV (One Side Protruded)

Operating Temperature Range: -20°C~40°C

W₁, W₂ Tolerance D30~60 $\begin{matrix} 0 \\ -0.12 \end{matrix}$
D65, 70 $\begin{matrix} 0 \\ -0.15 \end{matrix}$

Ⓜ **Material**

Tire Section	Thermosetting Ether Type Urethane (Brown, Shore A95)
Bearing	Outer Ring, Inner Ring, Balls: SUJ2 Shield: Steel

■ **For Light Load**

Part Number Type	D	d	d Tolerance			d ₁	B	B ₁	W ₁	W ₂	Allowable Load N (Reference Value)	Mass (g)			Unit Price					
			UMRW, UMRV	UMRR	UMRW							UMRV	UMRR	UMRW	UMRV	UMRR				
UMRW (Both Sides Protruded)	20	0	-0.02	0	-0.008	8.6	8	5	11	9.5	55	7	6	5						
	25	6				9.3	9	6	12	10.5	79	12	11	10						
	30	8				-0.04	0	-0.008	12	11	7	15	13	108	21	19	17			
	35								14	12	8	16	14	196	34	32	30			
UMRV (One Side Protruded)	45	12	+0.005	-0.012	-0.008	18.3 (16.8)	14	10	18	16	245	60	55	50						
	50					21.6 (20.0)	15	11	19	17	314	82	76	70						
	55					24.6 (23.0)	16	12	20	18	343	90	83	77						
UMRR (No Protrusion)	65	17	-0.012	-0.012	-0.008	24.6 (23.0)	16	12	20	18	392	120	112	104						
	70					29.3 (27.6)	18	14	22	20	441	130	121	113						
	75					510	188	175	164											
	80					589	199	187	176											

Ⓜ () of d₁ dimension is applicable to UMRR. kgf=Nx0.101972

■ **For Heavy Load**

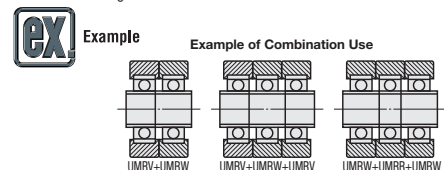
Part Number Type	D	d	d Tolerance	d ₁	d ₂	B	W ₁	W ₂	Allowable Load N (Reference Value)	Mass (g)		Unit Price			
										UMRHW	UMRHV	UMRHW	UMRHV		
UMRHW (Both Sides Protruded)	30	8	-0.04	12.0	22	11	15	13	303	24	23				
	35									28	27				
	40									474	62	59			
	45									579	78	75			
UMRHV (One Side Protruded)	50	20	+0.005	-0.012	29.3	47	18	22	20	660	84	82			
	55									794	157	151			
	60									829	167	162			
	65									918	199	191			
70	1050	210	202												

kgf=Nx0.101972

Ordering Example
Part Number
UMRW40
UMRHV55

■ **Features**

- As the bearing inner rings protrude, there is no need to combine stepped shafts or collars for mounting.
- The urethane section is of a tire and wheel layered construction (Except for D20 - D35 are single layer). Economical small diameter shafts can be used even for large diameter rollers.
- The bearings used have special configuration to prevent the urethane from detaching.
- Though it excels in oil resistance, applying solvents may cause swelling and reduction in strength.



C-UMBB

Ⓜ **Material:** Polyurethane (Black)
Bearing: Steel
Ⓜ **Hardness:** Shore A90

Ⓜ For bearing detailed dimensions, see P.989.

Part Number Type	d	D	B	D ₁	r (min)	Relative Dimension		Bearing Used	Unit Price
						D _s (min)	R ₁ (max)		
C-UMBB	4	13	4	9	0.15	5	0.1	684ZZ	
	5	16	4*	13	0.2	6.6	0.2	695ZZ	
	6	20	5	15	0.2	7.6	0.2	696ZZ	

*Note that B dimension is different in C-UMBB5-16, and UMBB5-16 that appears on P.1151. In UMBB5-16, B=5. Moreover in C-UMBB5-16, Urethane Molded Bearings Shafts included on P.1155 are also not available.

Item	Magnitude of the force to peel Urethane from bearing			
	Rotation direction		Cross direction	
Measurement Method				
Product Type	Press-fit Bearing	Molded Bearing	Press-fit Bearing	Molded Bearing
Size	4-13	4kgf · m or more	8kgf · m or more	6kgf
	5-16	4kgf · m or more	8kgf · m or more	7kgf
	6-20	4kgf · m or more	8kgf · m or more	10kgf
No peeling at 20kgf				

ex Example

Application direction	Sideways	Top	Bottom	Slanting
	Recommended Product	Press-fit Bearing	Press-fit Bearing	Lightweight: Press-Fit Bearings HeavyWeight: Molded Bearings

Ⓜ Note that even if it is applied from top, side and bottom, if there is unbalanced load due to mounting accuracy or backlash of work, or when used in high rotation, Urethane of the Press-Fit Bearing may come off.

Ordering Example
Part Number - D
C-UMBB4 - 13