

Urethane Molded Bearings

Inner Wheel Protruded

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

RoHS

For Light Load

UMRW (Both Sides Protruded)

UMRV (One Side Protruded)

UMRR (No Protrusion)

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

Material	
Tire Section	Thermoplastic Ether Type Urethane (Black, Shore A95)
Wheel Section	Thermoplastic Lactone Type Urethane (Black)
Bearing	Outer Ring, Inner Ring, Balls: EN 1.3505 Equip. Shield: Rubber

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

Ⓜ The structure of D20 to D35 is single layer (only for tire section).

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

RoHS

For Heavy Load

UMRHW (Both Sides Protruded)

UMRHV (One Side Protruded)

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

Material	
Tire Section	Thermosetting Ether Type Urethane (Brown, Shore A95)
Bearing	Outer Ring, Inner Ring, Balls: EN 1.3505 Equip. Shield: Steel

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

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	UMRR							UMRW	UMRV	UMRR	UMRW	UMRV	UMRR	
UMRW (Both Sides Protruded)	20	0	0	-0.02	-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				12	11	7	15	13	108	21	19	17				
	35	10				14	12	8	16	14	147	24	22	20				
UMRV (One Side Protruded)	40	12	+0.005	-0.012	-0.008	18.3	14	10	18	16	245	60	55	50				
	45	15				21.6	15	11	19	17	274	66	61	56				
	50	15				21.6	15	11	19	17	314	82	76	70				
	55	20				24.6	16	12	20	18	343	90	83	77				
UMRR (No Protrusion)	60	17	0	-0.01	-0.008	24.6	16	12	20	18	392	120	112	104				
	65	17				29.3	16	12	20	18	441	130	121	113				
	70	20				29.3	18	14	22	20	510	188	175	164				
	75	20				29.3	18	14	22	20	510	188	175	164				
80	20	0	-0.01	-0.008	589	199	187	176	589	199	187	176						

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

For Heavy Load

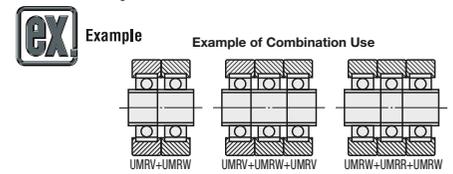
Part Number Type	D	d	d Tolerance		d ₁	d ₂	B	W ₁	W ₂	Allowable Load N (Reference Value)	Mass (g)		Unit Price		
			UMRHW, UMRHV	UMRR							UMRHW	UMRHV			
UMRHW (Both Sides Protruded)	30	8	0	-0.04	12.0	22	11	15	13	303	24	23			
	35	12									347	28	27		
	40	15									474	62	59		
	45	20									579	78	75		
UMRHV (One Side Protruded)	50	20	+0.005	-0.012	29.3	47	18	22	20	660	84	82			
	55	25									794	157	151		
	60	25									829	167	162		
	65	25									918	199	191		
70	25	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.



Urethane Press-Fit Bearings

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

C-UMBB

RoHS

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

For bearing detailed dimensions, see P989.

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

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