

# Urethane Molded Bearings

## Inner Wheel Protruded

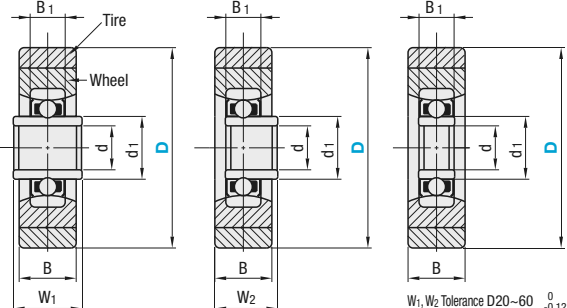
### Urethane Molded Bearings - Inner Wheel Protruded (For Light Load)



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 Equiv. Shield: Rubber

W1, W2 Tolerance D20~60 0 -0.12 D65~80 0 -0.15

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

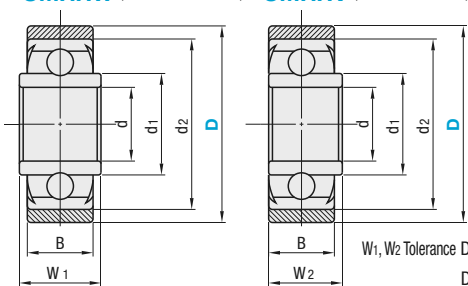
### Urethane Molded Bearings - Inner Wheel Protruded (For Heavy Load)



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 Equiv. Shield: Steel

W1, W2 Tolerance D30~60 0 -0.12 D65, 70 0 -0.15

#### For Light Load

Part Number		d	d Tolerance		d1	B	B1	W1	W2	Allowable Load N (Reference Value)	Mass (g)			Unit Price		
Type	D		UMRW, UMRV	UMRR							UMRW	UMRV	UMRR	UMRW	UMRV	UMRR
UMRW (Both Sides Protruded)	20	6	0	0 -0.008	8.6	8	5	11	9.5	55	7	6	5			
	25		-0.02		9.3	9	6	12	10.5	79	12	11	10			
	30	8	0		12	11	7	15	13	108	21	19	17			
	35		-0.04		14	12	8	16	14	147	24	22	20			
	40	10			14	12	8	16	14	196	34	32	30			
UMRV (One Side Protruded)	45	12	+0.005 -0.012		18.3 (16.8)	14	10	18	16	245	60	55	50			
	50					274	66	61	56							
	55	15			21.6 (20.0)	15	11	19	17	314	82	76	70			
60					343	90	83	77								
UMRR (No Protrusion)	65	17			24.6 (23.0)	16	12	20	18	392	120	112	104			
	70				441	130	121	113								
	75	20		0 -0.01	29.3 (27.6)	18	14	22	20	510	188	175	164			
	80					589	199	187	176							

kgf=Nx0.101972

#### For Heavy Load

Part Number Type	D	d	d Tolerance	d1	d2	B	W1	W2	Allowable Load N (Reference Value)	Mass (g)		Unit Price	
										UMRHW	UMRHV	UMRHW	UMRHV
UMRHW (Both Sides Protruded)	30	8	0 -0.04	12.0	22	11	15	13	303	24	23		
	35			18.3	32	14	18	16	347	28	27		
	40	12		21.4	35	15	19	17	474	62	59		
	45	15		25.1	37	16	20	18	579	78	75		
	50	20							660	84	82		
UMRHV (One Side Protruded)	55	20	+0.005 -0.012	29.3	47	18	22	20	794	157	151		
	60								829	167	162		
	65	25		33.8	52	19	23	21	918	199	191		
	70								1050	210	202		

kgf=Nx0.101972



Ordering Example

#### Part Number

UMRW40  
UMRHV55

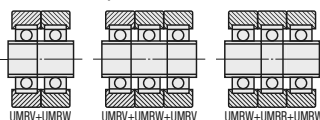
#### Features

- 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.



Example

Example of Combination Use



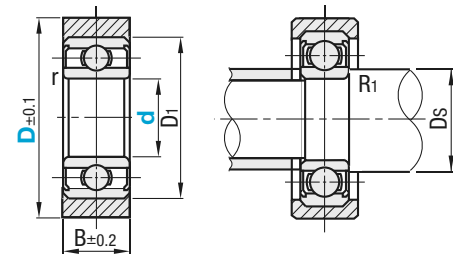
# Urethane Press-Fit Bearings

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



RoHS

#### C-UMBB

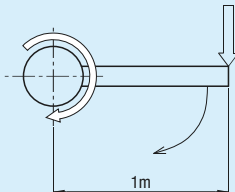
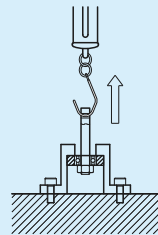


Material: Polyurethane (Black)  
Bearing: Steel  
Hardness: Shore A90

For bearing detailed dimensions, see P.989.

Part Number		D	B	D1	r (min)	Relative Dimension		Bearing Used	Unit Price
Type	d					Ds (min)	R1 (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	No peeling at 20kgf
	5-16	4kgf · m or more	8kgf · m or more	7kgf	
	6-20	4kgf · m or more	8kgf · m or more	10kgf	



Example

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

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