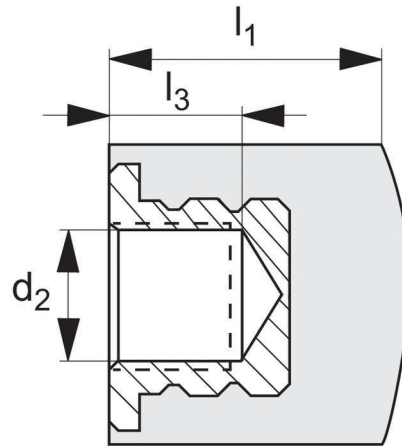
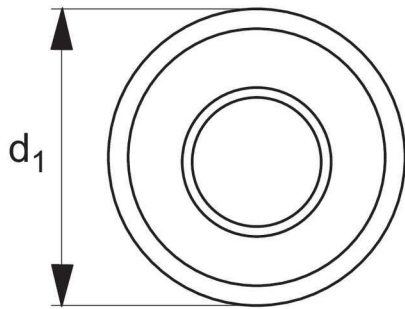


Metric Bumpers - Round

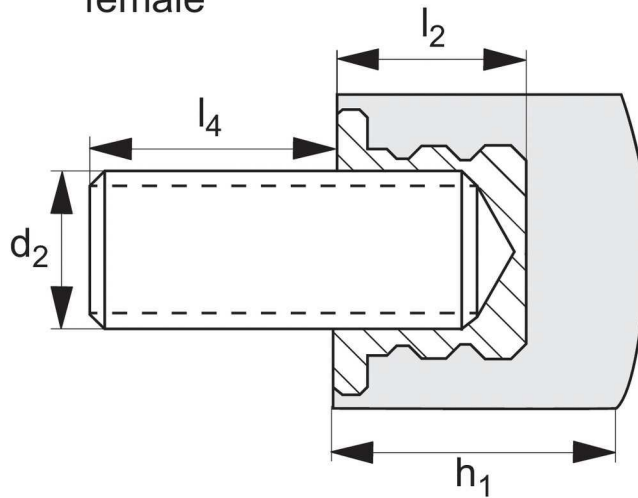
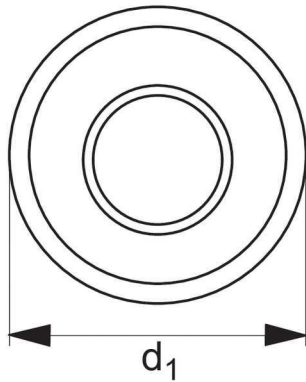
male and female



60880



female



male

Material

Black Neoprene: flame and weather resistant. Resists: oil, ozone and gasoline. Temperature resistance: -5°C to +93°C (shortly +120°C).

Urethane: highly abrasion resistant, high strength and load bearing. High elongation and hardness. Resists ozone and oxygen. Temperature resistance: -18°C to +93°C (shortly +120°C).

Technical Notes

Bumpers are moulded to solid steel cores. They are used to guard, stop, align, position, or protect parts through stages of manufacturing.

Tips

All dimensions metric.

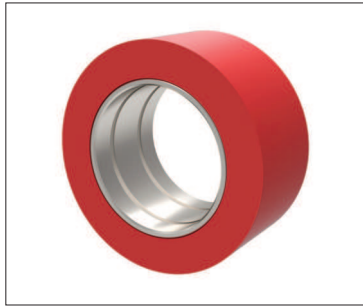


Order No. Neoprene	Order No. Urethane	Type	d ₁	l ₁	d ₂	l ₃	l ₄	l ₂	Duro neoprene	Duro urethane
60880.W0411	60880.W0451	Female	19	16	M 6 x 1,00	6	-	9,0	70	80
60880.W0412	60880.W0452	Female	19	16	M 8 x 1,50	6	-	9,0	70	80
60880.W0413	60880.W0453	Female	32	32	M10 x 1,50	13	-	19,0	40	80
60880.W0414	60880.W0454	Female	32	32	M10 x 1,25	13	-	19,0	40	80
60880.W0415	60880.W0455	Female	32	32	M12 x 1,75	13	-	19,0	40	80
60880.W0416	60880.W0456	Female	32	32	M12 x 1,25	13	-	19,0	40	80
60880.W0417	60880.W0457	Female	32	32	M16 x 2,00	13	-	19,0	40	80
60880.W0418	60880.W0458	Female	45	42	M16 x 2,00	16	-	22,5	40	80
60880.W0419	60880.W0459	Female	57	57	M20 x 2,50	26	-	35,0	40	80
60880.W0420	60880.W0460	Female	57	57	M24 x 3,00	25	-	35,0	40	80
60880.W0615	60880.W0635	Male	32	32	M10 x 1,50	-	15	19,0	40	80
60880.W0616	60880.W0636	Male	32	32	M10 x 1,50	-	30	19,0	40	80
60880.W0617	60880.W0637	Male	32	32	M12 x 1,75	-	15	19,0	40	80
60880.W0618	60880.W0638	Male	32	19	M12 x 1,75	-	30	19,0	40	80
60880.W0619	60880.W0639	Male	32	32	M16 x 2,00	-	15	19,0	40	80
60880.W0620	60880.W0640	Male	32	32	M16 x 2,00	-	30	19,0	40	80
60880.W0621	60880.W0641	Male	45	42	M16 x 2,00	-	15	22,5	40	80
60880.W0622	60880.W0642	Male	45	42	M16 x 2,00	-	30	22,5	40	80

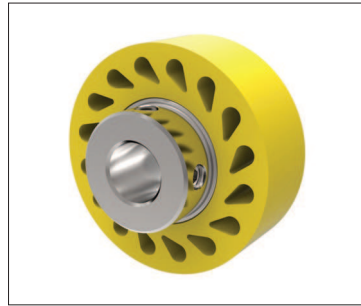


Wixroyd Rollers

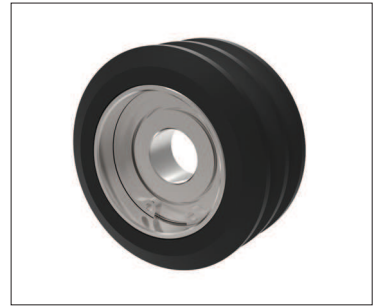
Product overview



Solid rollers - have a smooth surface and a solid body

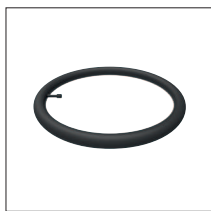


Durasoft rollers - have a smooth contact surface with teardrop holes to allow greater roller compression under load.



Finned rollers - are grooved and provide self-cleaning as dirt, debris and liquid pass under the contact surface of the roller.

Durability levels



20 durometer:
Stiff foam rubber



35 durometer:
Pencil rubber top



60 durometer:
Car tyre

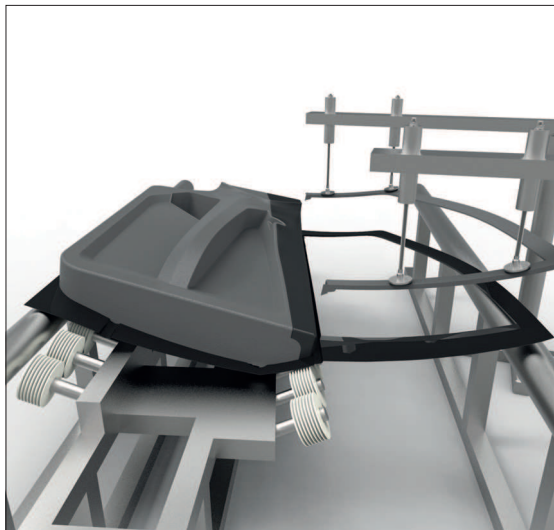


80 durometer:
Skateboard wheel



90 durometer:
Hockey puck

Applications



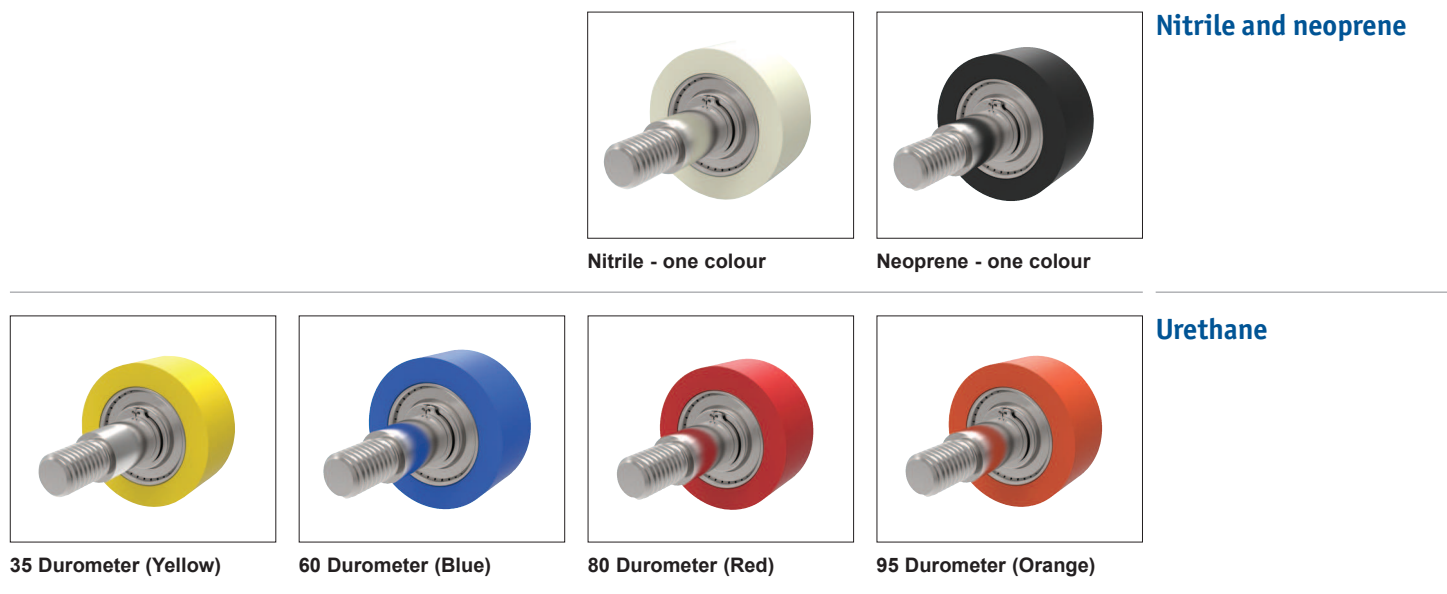
Rollers are used in car manufacturing to guide and align doors during bonding and curing applications



Bumpers have found their way into commercial exercise equipment to provide protection and stability during use.



Materials colour guide and properties



Nitrile and neoprene

Nitrile - one colour

Neoprene - one colour

Urethane

35 Durometer (Yellow)

60 Durometer (Blue)

80 Durometer (Red)

95 Durometer (Orange)

Base Elastomer	Chemical Name	Advantages	Disadvantages	Max. Temp	Min. Temp	Material properties
Nitrile	Nitrile Butadiene	Resistant to petroleum, oil, alcohol & abrasion.	Affected by degreaser solvents.	Continuous 79°C Intermittent 107°C	-51°C	
Neoprene	Chloroprene	Flame and weather resistant. Resistant to Petroleum, oil, ozone & high temp.	Affected by phosphate hydraulic fluids, aromatic hydrocarbons.	Continuous 93°C Intermittent 121°C	-40°C	
Urethane	Di-Isocyanate Polyurethane	Highest abrasion resistance, strength & load bearing. High elongation, hardness. Resistance to Ozone & Oxygen.	Affected by ether, esters, acid, aromatics, alkalis.	Continuous 93°C Intermittent 121°C	-54°C	

Property:	Nitrile	Neoprene	Urethane
Tensile Strength	3 3	3 3 3	3 3 3 3
Ozone Resistance	3	3 3	3 3 3 3
Cut Resistance	3 3	3 3 3	3 3 3 3
Abrasion Resistance	3 3	3 3 3	3 3 3 3

Resistance To:	Nitrile	Neoprene	Urethane
Compression Set	3 3	3 3 3	3 3 3
ASTM #1 Oil	3 3 3 3	3 3	3 3 3 3
ASTM #2 Oil	3 3 3 3	3 3	3 3 3 3
Reference Fuel B	3 3 3	3 3	3 3 3 3
Ketones: MEK	3	3 3	3
Aromatics: Toluene	3 3 3	3	3 3 3 3
Aliphatics: Hexane	3 3 3 3	3 3 3	3 3 3 3
Ethyl Acetate	3	3 3 3	3
Cellosolve	3 3	3 3 3 3	3
Methylene Chloride	3	3	3 3 3 3
Trichloroethylene	3	3	3 3 3 3
Diethylene Glycol	3 3 3 3	3 3 3 3	3 3 3
Isopropyl Alcohol	3 3 3	3 3 3	3 3 3
Caustics: 10% NaOH	3 3 3	3 3 3	3
Acids: H2SO4	3 3	3 3 3	3

Excellent 3 3 3 3 Good 3 3 3 Fair 3 3 Poor 3



The tables below show the maximum theoretical radius loads that can be applied to the respective bearings. Refer to individual product tables to identify bearing type supplied with roller.

Standard bearings

Bearing Type	Inside diameter (inches)	Outside diameter (inches)	Width (inches)	Load (Kg)	Speed (rpm)
A - Standard Double	.313/.317	.870/.875	.498/.502	55	50
				36	100
				24	250
				20	500
B - Standard Single	.500/505	1.245/1.250	.370/.380	119	50
				79	100
				51	250
				47	500
C - Standard Double	.500/505	1.245/1.250	.745/.755	192	50
				128	100
				83	250
				70	500

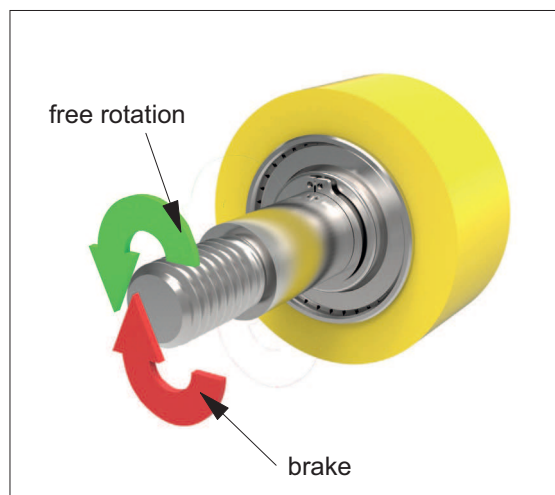
With the calculations above, typical life is approximately 2500 hours.

Clutch bearings

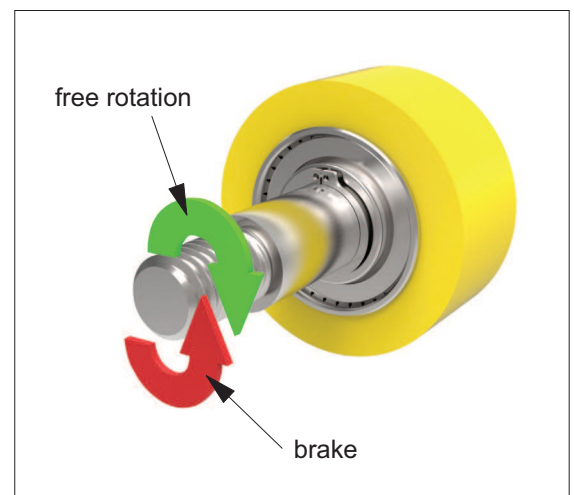
Bearing Type	Inside diameter (inches)	Outside diameter (inches)	Width (inches)	Load (Kg)	Speed (rpm)
H	.3745/.3750	.6245/.6255	.865/.875	167	33
				146	50
				116	100
				85	250
I	.6245/.6250	.8745/.8755	.990/1.000	277	33
				242	50
				192	100
				142	250

With the calculations above, typical life is approximately 1,000,000 revolutions or 500 hours. The bearings are shielded and pre-lubricated for life with grease.

A clutch roller can only be used in one direction, as shown. See data table for clutch direction of particular part.



Left clutch bearing



Right clutch bearing