

## ROLLER AND BUMPER MATERIAL INFORMATION

Base Elastomer	Chemical Name	Advantages	Disadvantages	Max. Service Temp F°	Min. Service Temp F°
Neoprene Black	Chloroprene	Flame and weather resistant. Resists: gasoline, oil, ozone, high temp.	Affected by phosphate hydraulic fluids, aromatic hydrocarbons.	Continuous 200° Intermittent 250°	-40°
Urethane	Di-Isocyanate Polyurethane	Highest abrasion resistance, strength & load bearing. High elongation, hardness. Resistant to ozone & oxygen.	Affected by ether, esters, acid, aromatics, alkalis.	Continuous 200° Intermittent 250°	-65°
White Nitrile	Nitrile Butadiene	Resistant to gasoline, oil alcohol, abrasion.	Affected by degreaser solvents.	Continuous 175° Intermittent 225°	-60°

All durometer ratings are based on a Shore A rating.

### Durometer Guide:

Durometer 20 = Stiff Foam Rubber  
 Durometer 35 = Pencil Eraser  
 Durometer 60 = Auto Tire  
 Durometer 80 = Skateboard Wheel  
 Durometer 95 = Hockey Puck

### Urethane Color Guide:

Durometer 35 = Yellow  
 Durometer 60 = Blue  
 Durometer 80 = Red  
 Durometer 95 = Orange or Black

Urethane Covered Bearings and Press Fit Rollers in 95A are black in color. All other rollers in 95A are orange. All Nitrile Rollers and Bumpers are white. All Neoprene Rollers and Bumpers are black.

### Roller and Bumper Material Property Comparison Chart:

4 = Excellent 3 = Good 2 = Fair 1 = Poor

Property:	White Nitrile	Neoprene	Urethane
Tensile Strength	2	3.5	4
Ozone Resistance	1	2.5	4
Cut Resistance	2	3	4
Abrasion Resistance	2.5	3.5	4
Tear Strength	2	3	4

Resistance To:	White Nitrile	Neoprene	Urethane
Compression Set	2.5	3	3.5
ASTM #1 Oil	4	2.5	4
ASTM #2 Oil	4	2	4
Reference Fuel B	3.5	2	4
Ketones: MEK	1	2	1
Aromatics: Toluene	3.5	1.5	4
Aliphatics: Hexane	4	3	4
Ethyl Acetate	1.5	3	1.5
Cellosolve	2	4	1.5
Methylene Chloride	1	1	1
Trichloroethylene	1	1	1
DiethyleneGlycol	4	4	3
Isopropyl Alcohol	3.5	3.5	3
Caustics: 10% NaOH	3.5	3.5	1
Acids: H2SO4	2	3	1