

Wheel Diameter (in.)	Wheel Width (in.)					
	8	8.5	9	9.5	10	10.5
<b>16</b>						
Tire width (mm)	225	245	255	265	275	295
Aspect ratio	50	45	40	40	40	35
Tire diameter (in.)	24.85	24.68	24.03	24.34	24.66	24.12
Actual speed (60 mph indicated)	60	60	58	59	60	58
Front wheel offset (mm)	31	38	44	50	57	-
Tire clearance, outside (in.)	0.22	0.24	0.23	0.21	0.24	-
Tire clearance, inside (in.)	1.78	1.26	0.77	0.29	-0.24	-
Rear wheel offset (mm)	19	25	31	38	44	50
Tire clearance, outside (in.)	0.24	0.23	0.22	0.24	0.23	0.21
Tire clearance, inside (in.)	2.26	1.77	1.28	0.76	0.27	-0.21
<b>17</b>						
Tire width (mm)	225	245	255	265	275	295
Aspect ratio	45	40	35	35	35	30
Tire diameter (in.)	24.97	24.71	24.02	24.30	24.57	23.96
Actual speed (60 mph indicated)	60	60	58	59	59	58
Front wheel offset (mm)	31	38	44	50	57	-
Tire clearance, outside (in.)	0.22	0.24	0.23	0.21	0.24	-
Tire clearance, inside (in.)	1.78	1.26	0.77	0.29	-0.24	-
Rear wheel offset (mm)	19	25	31	38	44	50
Tire clearance, outside (in.)	0.24	0.23	0.22	0.24	0.23	0.21
Tire clearance, inside (in.)	2.26	1.77	1.28	0.76	0.27	-0.21
<b>18</b>						
Tire width (mm)	225	245	255	265	275	295
Aspect ratio	35	35	30	30	30	30
Tire diameter (in.)	24.20	24.75	24.02	24.25	24.49	24.96
Actual speed (60 mph indicated)	58	60	58	59	59	60
Front wheel offset (mm)	31	38	44	50	57	-
Tire clearance, outside (in.)	0.22	0.24	0.23	0.21	0.24	-
Tire clearance, inside (in.)	1.78	1.26	0.77	0.29	-0.24	-
Rear wheel offset (mm)	19	25	31	38	44	50
Tire clearance, outside (in.)	0.24	0.23	0.22	0.24	0.23	0.21
Tire clearance, inside (in.)	2.26	1.77	1.28	0.76	0.27	-0.21
<b>19</b>						
Tire width (mm)	225	245	255	265	275	295
Aspect ratio	30	30	25	25	25	25
Tire diameter (in.)	24.31	24.78	24.01	24.21	24.41	24.80
Actual speed (60 mph indicated)	59	60	58	58	59	60
Front wheel offset (mm)	31	38	44	50	57	-
Tire clearance, outside (in.)	0.22	0.24	0.23	0.21	0.24	-
Tire clearance, inside (in.)	1.78	1.26	0.77	0.29	-0.24	-
Rear wheel offset (mm)	19	25	31	38	44	50
Tire clearance, outside (in.)	0.24	0.23	0.22	0.24	0.23	0.21
Tire clearance, inside (in.)	2.26	1.77	1.28	0.76	0.27	-0.21
<b>20</b>						
Tire width (mm)	225	245	255	265	275	295
Aspect ratio	25	25	20	20	20	20
Tire diameter (in.)	24.42	24.82	24.01	24.17	24.33	24.64
Actual speed (60 mph indicated)	59	60	58	58	59	59
Front wheel offset (mm)	31	38	44	50	57	63
Tire clearance, outside (in.)	0.22	0.24	0.23	0.21	0.24	0.23
Tire clearance, inside (in.)	1.78	1.26	0.77	0.29	-0.24	-0.73
Rear wheel offset (mm)	19	25	31	38	44	50
Tire clearance, outside (in.)	0.24	0.23	0.22	0.24	0.23	0.21
Tire clearance, inside (in.)	2.26	1.77	1.28	0.76	0.27	-0.21

Select your wheel diameter and width from the chart to the left.

Please note that the numbers shown are **recommendations** only, and are not the only combinations that will work. For specific details, please refer to the appropriate section below.

**Tire Width**

The recommended tire width shown is based on the **nominal** wheel width, which is the **rated** wheel width (shown at the top), plus 1", representing the width of the wheel from outside edge to outside edge. The rated width is the distance between the inner and outer flanges or lip of the wheel, where the tire bead will be seated when mounted.

Please note that you can typically increase tire width one or sometimes even two sizes larger, depending on the **actual** measurements of the tire, which may vary somewhat from the **rated** width.

**Aspect Ratio**

The aspect ratio is the tire sidewall height. The number shown is a percentage of the width, so a 50-series tire has a sidewall height that is 50% of the width.

Please note that the combinations of tire width and aspect ratio shown may not be available and are based on maintaining an overall height roughly equivalent to the stock P225/50-16s. However, you can use of a tire of the recommended width with a different aspect ratio, but keep in mind that it will affect the overall tire height and therefore the actual speed of your car.

To see how a different aspect ratio affects tire height and actual speed, simply replace the **recommended** aspect ratio with an **available** aspect ratio and the tire height and actual speed calculations will be recalculated.

**Important note:** If you replace the formula in a cell, that cell will no longer recalculate based on other changes you make. If you do change cell values, do not save the file so that you can close and re-open the spreadsheet to revert to the original formulas if necessary, or hit **Ctrl-Z** to undo.

**Tire Diameter**

As mentioned above, tire diameter is the overall **nominal** height of the tire. A tire under load is not a perfect circle, so when mounted on the car, **actual** tire height will be somewhat less than the indicated figure.

The stock P225/50-16 tires have a nominal height of approximately 24.85", so to avoid altering the actual speed of the vehicle significantly, try to maintain a tire diameter close to stock.

**Actual Speed**

When you change tire diameter, you will affect the actual speed of the car. However, since the speedometer is driven by a speed sensor in the tailshaft of the transmission, indicated speed (on your speedometer) will not change for a given engine rpm. The car, on the other hand, will actually be traveling faster (with a taller tire) or slower (with a shorter tire) than the indicated speed.

This number is an **estimate** of the effect a given tire size will have on the vehicle's actual speed (at 60 mph). Please keep in mind that tires are not perfectly round under load, and the **actual** speed will vary somewhat based on tire pressure and the weight of the car.

**Front Wheel Offset**

This is the recommended offset to maintain about 1/4" clearance between the outside edge of the tire and the fender. The recommended maximum front spacing (distance from the front edge of the wheel to the centerline of the wheel plus offset) for the front is about 3.5". The recommended offsets shown result in front spacing of about 3.25". A larger offset will move the outer face or edge of the wheel towards the inside of the car. A smaller offset will move it outward.

Please note that the offsets shown may not be available. If this is the case, you can enter the actual offset for the appropriate wheel width and the outside and inside clearance figures will be automatically recalculated.

Remember not to save the spreadsheet if you have made changes to cell values, or you will lose the original formulas.

**Tire Clearance, Outside**

This number is the clearance between the tire and the fender. Offsets have been calculated to maintain about 1/4" clearance so that rolling fenders should not be necessary unless the car is excessively lowered.

If a larger offset is selected, it may be necessary to roll the fender lip to avoid rubbing or to use flares for additional clearance.

**Tire Clearance, Inside**

This number is the clearance between the tire and spring on the inside edge of the tire. The more clearance the better, especially in the front where turning the wheels may bring the tires into contact with the fender liner.

A **negative** number indicates that the combination will likely not work with stock springs and shocks. Coilover shocks with smaller diameter springs may be required for additional clearance, and in the rear of the car, aftermarket trailing arms with an offset towards the center of the car may also be required.

Please note that the larger the wheel diameter, the more clearance the trailing arm has. In other words, a 17x10.5" rear wheel would likely require aftermarket trailing arms **and** coilover shocks for additional clearance, while a 19x10.5" wheel would likely only require coilover shocks.

**Rear Wheel Offset**

This is the recommended offset to maintain about 1/4" clearance between the outside edge of the tire and the fender. The recommended maximum front spacing (distance from the front edge of the wheel to the centerline of the wheel plus offset) for the rear of the car is about 4". The recommended offsets shown result in front spacing of about 3.75". A larger offset will move the outer face or edge of the wheel towards the outside of the car. A smaller offset will move it inward.

Please note that the offsets shown may not be available. If this is the case, you can enter the actual offset for the appropriate wheel width and the outside and inside clearance figures will be automatically recalculated.

Remember not to save the spreadsheet if you have made changes to cell values, or you will lose the original formulas.