

WINCHESTER® COMPONENTS CATALOG



RELOADING DATA INCLUDED



WINCHESTER
A M M U N I T I O N



Winchester[®] Components

Winchester Powder & Primers



New Extruded Powder

Winchester® Powders



WST

Target shotshell and standard velocity handgun propellant. Ideal for use in 45 Auto match applications. Consistent, clean, low flash and smoke are benefits to the shooter. Powder of choice for reloading AA shells.



231

As the most popular reload propellant, 231 is a pistol powder ideally suited to the 38 Special, 45 auto, and 9mm standard loads. Consistency, clean burning, low flash, and a broad range of applications make this a powder of choice on any pistol cartridge reloader's shelf.



WSF

Super-Field® propellant is the propellant of choice for Winchester 20 gauge AA® Target Load and 12 gauge 3 3/4 dram equivalent Super-X® load. WSF is an ideal choice to maximize velocities in 12 gauge 1 1/8 oz. and 1 1/4 oz. loads. Super-Field also performs well in 38 Super, 9mm and 40 S&W pistol loads. Excellent propellant for fast shooting action pistol applications.



296

This propellant was developed for Winchester factory loaded ammunition for 357 magnum, 44 magnum and 410 bore. Its high loading density provides optimal velocity. 296 is also the powder type used by Winchester for factory loaded 410 bore AA loads. However, 296 is not suitable for most rifle cartridges.



748

748 is the powder of choice by Winchester and the U.S. military for 5.56mm and 223 Rem. ammunition. The low flame temperature of 748 extends barrel life versus other similar speed powders. It can be used in a wide variety of centerfire rifle loads including 222 Rem, 30-30 Win, 308 Win, and up to 458 Win. Mag. Combine Winchester components with 748 to duplicate 308 Win factory load ballistics. 748 is recommended for use with the new 308 Fail Safe® bullets.



760

Combine Winchester components with 760 to duplicate 30-06 factory load ballistics. 760 has ideal flow characteristics which give it an advantage over other propellants with similar burn rates. 760 is recommended as an excellent choice for 7mm-08 as well as with the new 30-06 Fail Safe bullet.



New Extruded Powder

WXR

WXR is the propellant of choice for 7mm Magnum Winchester factory loaded ammunition. It is a double base, slow burning extruded propellant used to achieve maximum velocities and deliver superior performance in a wide variety of rifle cartridges.

Winchester® Primers

You can't buy a more reliable primer than Winchester. Ignition is instant and precise. In Winchester testing labs, primers are constantly and rigorously tested for consistency and sensitivity at temperatures and conditions far beyond the range of normal usage. Ignition reliability is assured when you use Winchester primers.

- Better sensitivity for more positive firing in all guns.
- 7 different primers cover your reloading needs for shotshells, rifle and handgun cartridges.
- Non-corrosive, non-mercuric.
- Weight of the primer mixture is carefully controlled.
- Every Winchester primer is consistent in size and quality.
- Anvil heights are measured to precise tolerances to assure perfect ignition.
- Winchester primers maintain stability in extremes of temperature and humidity.

WARNING - Primers may explode if subjected to impact, shock, or intense heat. Store in original factory container only. Primers in bulk are capable of mass explosion. Do not use primer feed devices for reloading.

Winchester Primers: Centerfire primers are recommended for use as follows:

Large Rifle - WLR



22-250 Remington	284 Winchester	30-40 Krag	35 Remington
225 Winchester	7mm Mauser	300 Winchester Magnum	356 Winchester
243 Winchester	7-08 Remington	300 H&H Magnum	358 Winchester
6mm Remington	7mm STW	300 Savage	375 H&H Magnum
25-35 Winchester	7mm Remington Magnum	303 Savage	38-55 Winchester
250 Savage	280 Remington	303 British	458 Winchester Magnum
25-06 Remington	7.62 x 39mm	308 Winchester	
257 Roberts +P	30-30 Winchester	32 Winchester Special	
7mm-08 Remington	30 Remington	8mm Mauser	
270 Winchester	30-06 Springfield	338 Winchester Magnum	

Small Rifle - WSR



218 Bee	223 Remington	357 Remington Maximum
22 Hornet	25-20 Winchester	9x23 Winchester
222 Remington	256 Winchester Magnum	454 Casull
222 Remington Magnum	30 Carbine	

Small (Reg) Handgun - WSP



25 Automatic	32 Short Colt	38 S&W	38 Super Automatic +P
30 Luger	32 Long Colt	38 Special	38 Automatic
32 Automatic	32 Colt New Police	38 Short Colt	380 Automatic
32 S&W	9mm Luger	38 Long Colt	357 SIG
32 S&W Long	9mm Winchester Magnum	38 Colt New Police	40 S&W

Large (Reg) Handgun - WLP



38-40 Winchester	44-40 Winchester	45 Winchester Magnum
10mm Automatic	44 Magnum	
41 Magnum	45 Colt	
44 S&W Special	45 Automatic	

Small (Mag) Handgun - WSPM



357 Magnum

Large (Mag) Rifle - WLRM



Large rifle magnum primer for those heavy charges of slow powder where extra ignition is required. Use only where magnum primers are specified.

Shotshell - #209



Winchester #209 Shotshell primers are recommended for superior performance in all standard gauge shotshell reloading applications.











Winchester Wads & Shot

Winchester® Wads

Reloaders seldom give wads the same critical attention given to other components. Often the result is poor performance - due entirely to the wad. Take a moment to review the high quality features of Winchester wads. For consistent, dependable performance shot after shot, ask for Winchester AA® wads.

- Available in 12, 20, 28, and 410, for all kinds of loads: target and field.
 - Designed for the proper rate of collapse.
 - Forms the right shape cup over the powder for proper obturation.
 - Cushions the initial shock, designed to take the bite out of recoil.
 - Petal design protects the shot against flat-spotting, minimizes flyers in the pattern.
 - The uniform ballistics obtained with brand name wads may not be achieved with lower cost substitutes.
- * Wad must collapse at pre-determined rate in order to insure the proper pressure curve from the burning powder.

Winchester shot-protector wads of the AA® type are available to the handloader in ten types in 4 different gauges. All wads are packed 250 per container, except the WT12 which is 500. The 12 and 20 gauge wads are packed 5,000 per case. The 28 gauge and 410 wads are packed 2,500 per case.

	WAA12L -	gray, one-piece wad specially designed to duplicate the 24 gram Olympic load and 7/8 oz. loads. Can also be used for one ounce load.
	WT12 -	orange, one-piece wad. Economical substitute for WAA12, can also be used where WAA12 is called out.
	WAA12 -	white, one-piece wad for use in 12 gauge compression formed cases for 1-1/8 ounce loads for trap, skeet and field loads and other loads as shown in the data.
	WAA12R -	red, one-piece wad for use in a wide variety of cases, including compression formed cases, and for heavy field loads.
	WAA12F114 -	a yellow, flared petal AA type wad designed specifically for 12 gauge field loads with 1-1/4 ounce and 1-3/8 ounce shot charges.
	WAA12SL -	pink, one-piece wad used in 12 gauge for 1 to 1-1/8 ounce loads. A tight crimp offers the best performance. Duplicate the length of factory Super-Lite® loads for top performance.
	WAA20 -	white, one-piece wad for use in 20 gauge compression formed cases for skeet and field loads for 7/8 to 1 ounce loads. Also useful in other applications as specified in the data.
	WAA20F1 -	a yellow, flared petal AA type wad designed specifically for 20 gauge field loads with 1 ounce to 1-1/8 ounce shot charges.
	WAA28 -	pink, one-piece wad for use in 28 gauge compression formed cases for skeet and field loads.
	WAA41 -	white, one-piece wad for use in .410 bore compression formed cases for skeet and field loads.

Winchester® Shot

Winchester uniform, chilled lead shot provides consistent shot patterns and better penetration.

Strict quality control throughout the manufacturing process assures the ultimate in performance. All Winchester shot available in 25 pound bags.



Chilled Shot	
Symbol	Description
SS00BY	00 BUCK
SC2Y	#2 Chilled
SC4Y	#4 Chilled
SC5Y	#5 Chilled

Chilled Shot	
Symbol	Description
SC6Y	#6 Chilled
SC75Y	#7½ Chilled
SC8Y	#8 Chilled
SC9Y	#9 Chilled

Hard Shot (AA®)	
Symbol	Description
SC75YH	#7½ Hard
SC8YH	#8 Hard
SC9YH	#9 Hard

Source of Empty Cases

All Winchester® cases used in shotshell reloading are obtained as a result of first firing of factory loaded ammunition. In a great many instances, once-fired AA® cases and other Winchester shotshells can be purchased from local skeet and trap ranges, gun clubs, and dealers catering to the shotshell reloaders. If this service is not available, the only means of obtaining these cases would be as the result of firing factory ammunition.

Powder Bushings and Scales

Shotshell reloading tool powder bushings do not throw the exact charge specification in many cases. The reasons are many and include:

1. Variations in gravimetric density of powders from lot to lot.
2. Usually a bushing chart lists the nominal weight of a powder charge based on normal packing as a result of free flow and gravimetric density of a powder or on a bushing volume and the nominal gravimetric powder density at 100% packing.
3. Various operators of a tool will get various powder weight from an identical tool and bushing. This is due to the change in force of operation and the amount of vibration transmitted to the tool with resultant amount of packing of powder.
4. The amount of sizing force required on cases being loaded can cause a change in powder drop due to the change in tool vibration.
5. Bushing manufacturing tolerances.
6. Tool manufacturing tolerances.
7. Mismarked bushings.

A bushing listing chart cannot be interpreted as an absolute. It can represent what the manufacturer believes to be the nominal charge thrown with the listed bushing and powder. A reloading scale is an absolute must. Charges thrown must be carefully checked and changes in bushing sizes made where required. Do not try to determine the powder charge thrown by simply metering the powder bar back and forth and weighing charges. The tool must be cycled through the complete loading cycle to insure the same amount of vibration and powder packing as will take place in a normal loading cycle. Powder charges measured under the two conditions could vary as much as several grains.

WARNING—Steel Shot

With reference to the repeated inquiries on the reloading of steel shotshells, Winchester's advice, at this time, is: "DON'T DO IT!" Wait until suitable components and tested data are available from the ammunition makers.

At this time, key components, for acceptable steel shot loads, are not widely available to reloaders. This includes "soft" steel shot, the special plastic wads and shot sleeves designed for use with such shot, and the special powder and primer required. Some steel shot pellets have a diamond pyramid hardness of up to 270, as compared to the desired DPH of about 90 for the soft steel shot being used in commercial shot loads.

In some cases, available steel pellets are harder than the gun barrel in which they would be fired and can severely score barrel walls and distort barrel chokes. Commercial steel shot loads have special wads and thick plastic shot sleeves helping to shield the barrel wall from the shot pellets. The shot sleeves used in lead shot loads are not sufficient to protect gun barrels from damage due to steel shot. The reloading of steel shot loads, entirely different than loading lead shot ammunition, requires all new components and data. The attempt to load steel shot loads, with current components, would damage your gun and could injure the shooter or bystander.

Basically, when reliable data is available, the recommendations are as follows:

1. DO NOT RELOAD STEEL SHOTSHELLS WITH ANY COMPONENT OTHER THAN THOSE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER AS SUITABLE FOR SUCH LOADS.
2. DO NOT USE STEEL SHOT COMPONENTS IN LEAD SHOT LOADS UNLESS THE MANUFACTURER RECOMMENDS SUCH DUAL APPLICATION.

Steel shot components are not currently available from Winchester.

WARNING—Bismuth Shot

The reloading of Bismuth shot requires data developed specifically for Bismuth shot. Please refer to Bismuth Cartridge Company for appropriate load data for Bismuth shot. Do not reload Bismuth shotshells with any component other than those specifically recommended by the manufacturer as suitable for such loads. Bismuth Cartridge Company can be contacted at 7100 De Celis Pl, Van Nuys, CA 91406.

Buffered Shot Cautions

The use of any buffering material in a shot column will significantly alter the ballistics for any given shotshell load. Also, if not carefully tested, buffering materials can produce dangerously high pressures. The development of loading data for any buffered load requires extensive pressure and velocity testing to insure the proper speed propellant powder and propellant charge weight are being used for the specific buffering material.

The use of talc, flour, and similar non-compressible materials should not be considered as buffering materials as they can produce dangerously high, erratic pressures in an unpredictable manner.

The rate with which shotshell propellant burns within a shotshell is governed to a great extent by the uniform compressibility of the wadding and the shot itself. Changes in the compressibility, such as is the case with buffering materials, can drastically change the burn rate of the propellant. Careful testing is required to assure the load will not result in a damaged gun, personal injury or death. We do not suggest the use of buffered shot reloads without lab testing.

Shotshell Loading Instructions

CAUTION: Carefully read the information on the powder can label and follow the recommended loading instructions and precautions contained herein, before using the reloading data.

Winchester suggested loads are based on results obtained in our laboratory under carefully controlled conditions. They are offered without fee as an aid to handloaders, to be employed at their own discretion and risk. Since Winchester has no control over the circumstances of loading, Winchester assumes no liability for the results obtained. The handloading of shotshells should be undertaken only by those familiar with all safety precautions and observe conservative practices in reloading operations. The powder charges shown are maximum and must not be exceeded.

Cases

Exercise extreme care in determining use of the exact case listed in the data. Be certain to select the exact case being loaded. Substitution could be dangerous and data is not interchangeable from one case type to another. When in doubt contact the manufacturer of the case.

Primers

Winchester® Ammunition has a long-standing tradition of providing shooters and hunters with the finest ammunition products available. The company continues that tradition with the announcement of improvements in the performance of the Winchester 209 component shotshell primer. Winchester component primers have been the standard by which others have been measured for years. The improved 209 primer uses the same time-proven priming mix that has made the Winchester primers so popular among reloaders. The difference and improvement comes in the surface finish of the primer cup and battery cup of the 209 primer. Specifically, Winchester is changing the copper plated battery cup to a zinc plated battery cup. In addition, they are changing the nickel plated primer cup to a brass primer cup. These surface finish changes have resulted in an increase in the sensitivity of the primer with a more positive ignition of the primer even with off-center firing pin hits. Consumers should note that the new primer contains the exact primer mix as the old primer. No changes in existing load recipe data for the Winchester 209 primer are required. New packaging and graphics feature a banner to highlight the improved primer. For the immediate future, the Winchester 209 package will feature the words "NEW Surface Finish for Improved Sensitivity" on both the outside of the package and on the sleeve inside.

Use only those primers which are specifically shown in the data; do not substitute one primer for another. To do so could result in a significant change in ballistics, and could result in an unsatisfactory or even dangerous load. Never use shotshell primers having uncovered flash holes with BALL POWDER® smokeless propellants. To do so could be dangerous.

Powder

Check all powder charges with a scale. Check about 10 shells to determine the average weight of charges thrown and the uniformity of the charge. Variations in how the loading tool is handled, in the bushings themselves and in the specific components used, will alter the charges thrown. It is essential to check charge weight with a scale and go to the next larger or smaller bushing when and where required.

Wads

Use only those wads as specifically shown in the data; do not substitute one wad for another. To do so could result in a significant change in ballistics and could result in an unsatisfactory or even dangerous load. The uniform ballistics obtained with brand name wads may not be achieved with lower cost substitutes.

Wad Seating Pressure

Wad pressure, when using BALL POWDER propellant, is not critical. Pressures from 0 lbs. to 100 lbs. may be appropriate. The only criterion is enough pressure must be used to insure a good crimp. A safe level to use is 40 pounds, from which the loader may vary at his own choice to get the best crimp. Wads must be seated on the powder (no air space should exist between wad and powder). Do not load any components that require more than 100 pounds wad pressure.

Shot Bushing Diameters

.424-1/2 Oz.	.565-7/8 Oz.	.664-1 1/4 Oz.	.750-1 5/8 Oz.
.477-5/8 Oz.	.596-1 Oz.	.695-1 3/8 Oz.	.780-1 3/4 Oz.
.517-3/4 Oz.	.641-1 1/8 Oz.	.721-1 1/2 Oz.	.809-1 7/8 Oz.

Velocity

Velocities quoted in the data are averages of a series of shots fired in accordance with equipment and techniques used throughout the American arms and ammunition industry. Listed loads have given uniform velocity results in tests.

Shotshell velocity barrels used conform to the following lengths as approved by SAAMI*

10 ga.-3 1/2" Full Choke 32"	20 ga.-3" Full Choke 30"
12 ga.-3" Full Choke 30"	20 ga.-2 3/4" Full Choke 26"
12 ga.-2 3/4" Full Choke 30"	28 ga.-2 3/4" Full Choke 26"
16 ga.-2 3/4" Full Choke 28"	410 bore-2 1/2" or 3" Full Choke 26"

*Sporting Arms and Ammunition Manufacturers Institute

Pressure Data

All pressure data listed as psi has been measured with the latest Piezo electric system showing actual pounds per square inch (psi) and cannot be compared directly to the old data which used the copper crusher method (cup) or lead crusher method (LUP).

Black Powder Warning: Never substitute smokeless powder for black powder or Pyrodex® or mix smokeless powder with black powder or Pyrodex®. Never use smokeless powder in black powder firearms or in saluting cannons. Smokeless powder has much more energy than black powder or Pyrodex®. Substituting or mixing powders may cause the firearm to blow up resulting in personal injury, property damage, or death. Ballistics of shotshells are affected not only by the type and amount of powder, but also by the pellet size and charge weight of shot, the type of crimp, the type of shotshell case, and the type of wads used. Follow loading data instructions and do not deviate from recommended combinations.

Patterning

Typical Percentage of Pellets in a 30-inch Circle at 40 yards (Pattern) for Various Choke Sizes.

(Choke is a Constriction at the Muzzle of a Shotgun Barrel.)

Full Choke-65-70%	Improved Modified Choke-55-65%	Modified Choke-45-55%
Improved Cylinder-35-45%	True Cylinder-25-35%	

Selection of Shotshell Loads

Shotshell loads in this data reference are listed in order of gauge, shell length, case type and shot weight. Be certain to select the data for the exact case being loaded. Data is not interchangeable from one case type to another.

12 Gauge 2-3/4" Case AA®

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8-oz.*	Win. 209	WST	22.0	Win. WAA12L	1325	7,900 psi
7/8-oz.	Fed. 209A	WST	23.5	Win. WAA12L	1355	7,400 psi
7/8-oz.	CCI 209	WST	23.5	Win. WAA12L	1355	7,200 psi
7/8-oz.	Win. 209	WST	23.5	Win. WAA12L	1400	8,200 psi
1 oz.**	Win. 209	WST	19.5	Win. WAA12SL	1180	7,400 psi
1 oz.	Win. 209	WST	19.0	Fed. 12S0	1180	8,000 psi
1 oz.	CCI 209	WST	19.0	Fed. 12S0	1180	8,300 psi
1 oz.	Fed. 209	WST	19.5	Fed. 12S0	1180	7,900 psi
1 oz.	Fed. 209A	WST	19.0	Win. WAA12SL	1180	7,900 psi
1 oz.	Win. 209	WST	19.5	Win. WAA12L	1200	8,500 psi
1 oz.	Win. 209	WST	21.0	Win. WAA12SL	1235	8,100 psi
1 oz.	Win. 209	WST	20.5	Fed. 12S0	1235	9,500 psi
1 oz.	CCI 209	WST	21.5	Win. WAA12SL	1235	7,900 psi
1 oz.	CCI 209	WST	20.5	Fed. 12S0	1235	9,500 psi
1 oz.	Fed. 209	WST	21.0	Win. WAA12SL	1235	7,400 psi
1 oz.	Fed. 209	WST	21.0	Fed. 12S0	1235	9,300 psi
1 oz.	Fed. 209A	WST	20.0	Win. WAA12SL	1235	8,900 psi
1 oz.	Win. 209	WST	21.0	Win. WAA12L	1255	9,600 psi
1 oz.	Fed. 209A	WST	21.5	Win. WAA12L	1255	8,800 psi
1 oz.	CCI 209	WST	21.0	Win. WAA12L	1255	8,400 psi
1 oz.	Win. 209	WST	22.0	Win. WAA12SL	1290	9,000 psi
1 oz.	Win. 209	WST	22.0	Fed. 12S0	1290	10,900 psi
1 oz.	CCI 209	WST	22.5	Win. WAA12SL	1290	9,400 psi
1 oz.	CCI 209	WST	21.5	Fed. 12S0	1290	10,700 psi
1 oz.	Fed. 209	WST	22.5	Win. WAA12SL	1290	8,400 psi
1 oz.	Fed. 209	WST	22.5	Fed. 12S0	1290	10,700 psi
1 oz.	Fed. 209A	WST	21.0	Win. WAA12SL	1290	9,800 psi
1 oz.	Win. 209	WST	22.5	Win. WAA12L	1325	11,100 psi
1 oz.	CCI 209	WST	22.5	Win. WAA12L	1325	10,200 psi
1 1/8 oz.***	Win. 209	WST	18.5	Win. WAA12	1145	8,600 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. RXP12	1145	8,700 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. Fig-8	1145	8,400 psi
1 1/8 oz.	Win. 209	WST	19.0	Fed. 12S3	1145	9,800 psi
1 1/8 oz.	CCI 209	WST	19.0	Win. WAA12	1145	9,100 psi
1 1/8 oz.	CCI 209	WST	19.5	Rem. RXP12	1145	8,800 psi

* This load will duplicate the ballistics of the factory Winchester AA International load.

** This load will duplicate the ballistics of the factory Winchester AA Xtra-Lite target load.

*** This load will duplicate the ballistics of the factory Winchester AA Light 2-3/4 dram eq. target load.

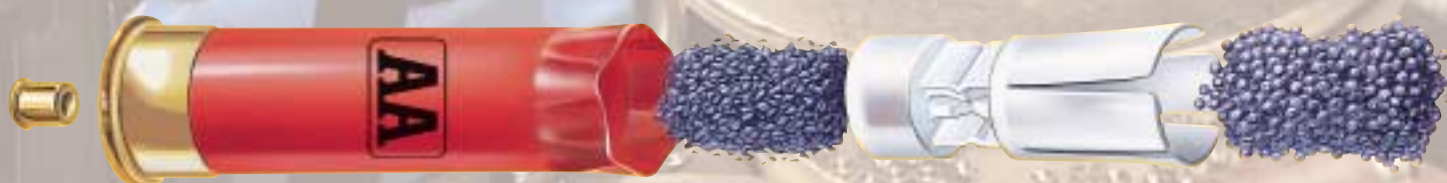
CAUTION: DO NOT INTERCHANGE FED 209 AND FED 209A PRIMERS

12 Gauge 2-3/4" Case AA®

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
1 1/8 oz.	CCI 209	WST	19.0	Rem Fig-8	1145	9,000 psi
1 1/8 oz.	CCI 209	WST	19.0	Fed. 12S3	1145	9,500 psi
1 1/8 oz.	Fed. 209	WST	19.0	Win. WAA12	1145	9,000 psi
1 1/8 oz.	Fed. 209	WST	19.5	Rem. Fig-8	1145	8,100 psi
1 1/8 oz.	Fed. 209	WST	19.5	Fed. 12S3	1145	10,000 psi
1 1/8 oz.	Fed. 209A	WST	18.5	Win. WAA12	1145	10,700 psi
1 1/8 oz.	Fed. 209A	WSF	21.5	Win. WAA12SL	1145	7,200 psi
1 1/8 oz.*	Win. 209	WST	20.0	Win. WAA12	1200	9,800 psi
1 1/8 oz.	Win. 209	WST	20.0	Rem. RXP12	1200	9,700 psi
1 1/8 oz.	Win. 209	WST	20.5	Rem. Fig-8	1200	10,000 psi
1 1/8 oz.	Win. 209	WST	20.0	Fed. 12S3	1200	10,900 psi
1 1/8 oz.	CCI 209	WST	20.5	Win. WAA12	1200	10,300 psi
1 1/8 oz.	CCI 209	WST	20.5	Rem. RXP12	1200	10,300 psi
1 1/8 oz.	CCI 209	WST	20.5	Rem. Fig-8	1200	10,000 psi
1 1/8 oz.	CCI 209	WST	20.5	Fed. 12S3	1200	10,800 psi
1 1/8 oz.	Fed. 209	WST	20.5	Win. WAA12	1200	10,000 psi
1 1/8 oz.	Fed. 209	WST	21.0	Rem. RXP12	1200	10,000 psi
1 1/8 oz.	Fed. 209	WST	21.0	Rem. Fig-8	1200	9,200 psi
1 1/8 oz.	Fed. 209	WST	21.0	Fed. 12S3	1200	10,900 psi
1 1/8 oz.	Fed. 209A	WSF	23.0	Win. WAA12SL	1200	8,400 psi
1 1/8 oz.	Fed. 209A	WSF	24.0	Win. WAA12SL	1255	9,100 psi
1 1/8 oz.	Win. 209	WSF	27.5	Win. WAA12	1310	8,700 psi
1 1/8 oz.	Win. 209	WSF	27.5	Fed. 12S3	1310	8,500 psi
1 1/8 oz.	Fed. 209A	WSF	25.5	Win. WAA12SL	1310	9,800 psi
1 1/8 oz.	Win. 209	WSF	29.0	Win. WAA12	1365	9,900 psi
1 1/8 oz.	Win. 209	WSF	28.5	Fed. 12S3	1365	9,500 psi
1 1/8 oz.	Win. 209	WSF	30.0	Win. WAA12	1400	10,600 psi
1 1/8 oz.	Win. 209	WSF	29.5	Fed. 12S3	1400	10,800 psi
1 1/4 oz.	Win. 209	WSF	26.0	Fed. 12S4	1220	9,000 psi
1 1/4 oz.	Win. 209	WSF	28.0	Win. WAA12F114	1275	9,700 psi
1 1/4 oz.	Win. 209	WSF	27.5	Fed. 12S4	1275	10,900 psi
1 1/4 oz.	CCI 209	WSF	29.0	Rem. RXP12	1275	10,400 psi
1 1/4 oz.	Fed. 209A	WSF	27.0	Win. WAA12F114	1310	10,700 psi
1 1/4 oz.	Win. 209	WSF	29.5	Win. WAA12F114	1330	10,600 psi
1 1/4 oz.	CCI 209	WSF	28.0	Rem. SP12	1330	9,800 psi

* This load will duplicate the ballistics of the factory AA Winchester Heavy 3 dram eq. target load.

CAUTION: DO NOT INTERCHANGE FED 209 AND FED 209A PRIMERS



12 Gauge 2 3/4" Case Remington RTL, STS & Nitro 27 Hulls

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8 oz.	Win. 209	WST	21.0	Win. WAA12L	1325	8,200 psi
7/8 oz.	CCI 209	WST	21.5	Win. WAA12L	1325	8,100 psi
7/8 oz.	Fed. 209A	WST	21.0	Win. WAA12L	1325	8,300 psi
7/8 oz.	Win. 209	WST	23.0	Win. WAA12L	1400	10,300 psi
7/8 oz.	CCI 209	WST	23.0	Win. WAA12L	1400	9,000 psi
7/8 oz.	Fed. 209A	WST	23.0	Win. WAA12L	1400	9,700 psi
1 oz.	Win. 209	WST	19.0	Fed. 12S0	1180	8,200 psi
1 oz.	CCI 209	WST	19.0	Win. WAA12SL	1180	8,000 psi
1 oz.	CCI 209	WST	18.5	Fed. 12S0	1180	8,800 psi
1 oz.	Fed. 209	WST	19.0	Win. WAA12SL	1180	8,100 psi
1 oz.	Fed. 209	WST	19.0	Fed. 12S0	1180	8,500 psi
1 oz.	Win. 209	WST	19.5	Win. WAA12SL	1235	8,000 psi
1 oz.	Win. 209	WST	20.0	Fed. 12S0	1235	8,900 psi
1 oz.	CCI 209	WST	20.0	Win. WAA12SL	1235	9,000 psi
1 oz.	CCI 209	WST	19.5	Fed. 12S0	1235	9,800 psi
1 oz.	Fed. 209	WST	20.5	Win. WAA12SL	1235	9,000 psi
1 oz.	Fed. 209	WST	20.0	Fed. 12S0	1235	9,700 psi
1 oz.	Win. 209	WST	21.0	Win. WAA12SL	1290	10,000 psi
1 oz.	Win. 209	WST	21.0	Fed. 12S0	1290	9,700 psi
1 oz.	CCI 209	WST	21.0	Win. WAA12SL	1290	10,100 psi
1 oz.	CCI 209	WST	20.5	Fed. 12S0	1290	10,800 psi
1 oz.	Fed. 209	WST	21.5	Win. WAA12SL	1290	9,700 psi
1 oz.	Fed. 209	WST	21.0	Fed. 12S0	1290	10,900 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. RXP12	1145	10,500 psi
1 1/8 oz.	Win. 209	WST	19.0	Rem. Fig-8	1145	10,400 psi
1 1/8 oz.	CCI 209	WST	18.0	Win. WAA12	1145	10,800 psi
1 1/8 oz.	CCI 209	WST	18.5	Rem. RXP12	1145	10,800 psi
1 1/8 oz.	CCI 209	WST	18.5	Rem. Fig-8	1145	10,200 psi
1 1/8 oz.	Fed. 209	WST	18.5	Rem. RXP12	1145	10,000 psi
1 1/8 oz.	Fed. 209	WST	18.5	Rem. Fig-8	1145	10,000 psi
1 1/8 oz.	Win. 209	WSF	27.0	Win. WAA12	1310	9,700 psi
1 1/8 oz.	Win. 209	WSF	28.5	Win. WAA12	1365	10,700 psi
1 1/8 oz.	Win. 209	WSF	28.0	Fed. 12S3	1365	8,900 psi
1 1/8 oz.	Win. 209	WSF	29.0	Fed. 12S3	1400	9,500 psi
1 1/4 oz.	Fed. 209	WSF	26.5	Win. WAA12F114	1220	8,800 psi
1 1/4 oz.	CCI 209	WSF	25.5	Win. WAA12F114	1220	9,100 psi
1 1/4 oz.	Win. 209	WSF	27.5	Win. WAA12F114	1275	9,700 psi
1 1/4 oz.	Fed. 209	WSF	28.0	Win. WAA12F114	1275	9,500 psi
1 1/4 oz.	Fed. 209	WSF	28.0	Rem. RXP12	1275	9,500 psi
1 1/4 oz.	CCI 209	WSF	27.0	Win. WAA12F114	1275	10,200 psi
1 1/4 oz.	Win. 209	WSF	29.5	Win. WAA12F114	1330	10,400 psi
1 1/4 oz.	Fed. 209	WSF	29.5	Win. WAA12F114	1330	10,200 psi
1 1/4 oz.	Fed. 209	WSF	29.5	Rem. RXP12	1330	10,700 psi
1 1/4 oz.	CCI 209	WSF	28.5	Win. WAA12F114	1330	10,900 psi

CAUTION: DO NOT INTERCHANGE FED 209 AND FED 209A PRIMERS

12 Gauge 2 3/4" Case Federal Gold Medal Hull

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
1 oz.	Win. 209	WST	20.5	Fed. 12S0	1180	7,400 psi
1 oz.	Win. 209	WST	22.0	Fed. 12S0	1235	8,500 psi
1 oz.	CCI 209	WST	21.0	Fed. 12S0	1235	8,500 psi
1 oz.	Win. 209	WST	23.0	Fed. 12S0	1290	9,300 psi
1 oz.	CCI 209	WST	22.5	Fed. 12S0	1290	9,500 psi
1 oz.	Fed. 209	WST	23.0	Fed. 12S0	1290	8,400 psi
1 1/8 oz.	CCI 209	WST	19.5	Fed. 12S3	1145	8,500 psi
1 1/8 oz.	Fed. 209	WST	20.0	Fed. 12S3	1145	7,700 psi
1 1/8 oz.	Win. 209	WST	21.0	Fed. 12S3	1200	9,500 psi
1 1/8 oz.	CCI 209	WST	21.0	Fed. 12S3	1200	10,300 psi
1 1/8 oz.	Fed. 209	WST	21.5	Fed. 12S3	1200	9,000 psi
1 1/4 oz.	CCI 209	WSF	27.0	Fed. 12S4	1275	9,200 psi
1 1/4 oz.	Win. 209	WSF	31.5	Fed. 12S4	1330	9,500 psi
1 1/4 oz.	CCI 209	WSF	29.5	Fed. 12S4	1330	10,600 psi

20 Gauge 2 3/4" Case AA®

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8 oz.	Win. 209	WSF	16.5	Win. WAA20	1200	11,200 psi
7/8 oz.	Win. 209	WSF	17.0	Rem. RXP20	1200	10,700 psi
7/8 oz.	Fed. 209	WSF	16.5	Win. WAA20	1200	11,400 psi
7/8 oz.	Fed. 209	WSF	17.0	Rem. RXP20	1200	10,500 psi
7/8 oz.	Fed. 209	WSF	16.5	Fed. 20S1	1200	11,400 psi
7/8 oz.	CCI 209	WSF	16.5	Win. WAA20	1200	11,300 psi
7/8 oz.	CCI 209	WSF	17.5	Rem. RXP20	1200	10,500 psi
7/8 oz.	CCI 209	WSF	16.5	Fed. 20S1	1200	11,400 psi

CAUTION: DO NOT INTERCHANGE FED 209 AND FED 209A PRIMERS

20 Gauge 2 3/4" Case- Remington-Peters "RXP" Plastic

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
7/8 oz.	Win. 209	WSF	17.0	Win. WAA20	1200	10,500 psi
7/8 oz.	Win. 209	WSF	17.5	Rem. RXP20	1200	10,600 psi
7/8 oz.	Win. 209	WSF	17.0	Fed. 20S1	1200	11,300 psi
7/8 oz.	Fed. 209	WSF	17.0	Win. WAA20	1200	10,700 psi
7/8 oz.	Fed. 209	WSF	17.5	Rem. RXP20	1200	10,300 psi
7/8 oz.	Fed. 209	WSF	17.0	Fed. 20S1	1200	10,800 psi
7/8 oz.	CCI 209	WSF	17.0	Win. WAA20	1200	10,500 psi
7/8 oz.	CCI 209	WSF	17.5	Rem. RXP20	1200	9,700 psi
7/8 oz.	CCI 209	WSF	17.5	Fed. 20S1	1200	11,100 psi

410 Bore 2 1/2" Case Winchester Compression-Formed

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
1/2 oz.	Win. 209	296	13.5	Win. WAA41	1150	9,100 LUP
1/2 oz.	CCI 109	296	13.5	Win. WAA41	1150	8,500 LUP
1/2 oz.	Win. 209	296	14.0	Win. WAA41	1200	9,800 LUP
1/2 oz.	Win. 209	296	14.0	Fed. 410SC	1200	10,300 LUP
1/2 oz.	CCI 109	296	14.0	Win. WAA41	1200	9,100 LUP
1/2 oz.	CCI 109	296	14.0	Fed. 410SC	1200	9,900 LUP

410 Bore 2 1/2" Case Remington-Peters "SP" Plastic (New style for 209 size primer)

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
1/2 oz.	Win. 209	296	15.0	Rem. SP410	1200	9,500 LUP

410 Bore 3" Case Winchester Compression-Formed

Shot Wgt.	Primer	Powder	Charge (grains)	Wad Column	Velocity (fps)	Pressure
11/16 oz.	Win. 209	296	13.5	Win. WAA41	1135	10,800 LUP
11/16 oz.	Win. 209	296	13.5	Fed. 410SC	1135	10,800 LUP
11/16 oz.	Fed. 410	296	14.0	Win. WAA41	1135	10,000 LUP
11/16 oz.	Fed. 410	296	14.0	Fed. 410SC	1135	10,600 LUP

CAUTION: DO NOT INTERCHANGE FED 209 AND FED 209A PRIMERS

WARNINGS

Read before using data

The shotshell and metallic cartridge data in this booklet supersede all previous data published for Winchester smokeless propellants.

The data shown in this booklet has been verified by tests fired in our laboratory under controlled conditions and found to produce safe cartridges. Since we have no control over the actual loading procedures and methods used, or the condition or choice of firearms and components used and assembled, no responsibility for the use or safety in use of these data is assumed or implied. Where data contained in this booklet list specific components, no changes or substitutions for these components can be made. The exception to this is substitutions of bullets of the same type, diameter, and weight from reputable manufacturers, without risking significant changes in the level of ballistic performance and/or safety of the loads shown.

WARNING - All smokeless powders are extremely flammable. Keep them stored in their original containers in locked cabinets, out of the reach of children or incompetent persons, and away from exposure to the sun's rays, heating equipment, electrical equipment, or any source of heat, flame or sparks.

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Black Powder - WARNING

Never substitute smokeless powder for black powder or Pyrodex or mix smokeless powder with black powder or Pyrodex. Never use smokeless powder in black powder firearms or in saluting cannons. Smokeless powder has much more energy than black powder or Pyrodex. Substituting or mixing powders may cause the firearm to blow up resulting in personal injury, property damage, or death.

Lead - WARNING

Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, and other substances known to cause birth defects, reproductive harm, and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.

Dram Equivalent - WARNING

Never use the dram equivalent measure as a weight for smokeless powders in reloading. Dangerously high pressures can occur and result in personal injury, property damage, or death.

Powder Storage - WARNING

The following information has been extracted from a pamphlet entitled "Properties and Storage of Smokeless Powder" issued by the Sporting Arms and Ammunition Manufacturers Institute (SAAMI) at Flintlock Ridge Office Center, 11 Mile Hill Rd., Newtown, CT 06470-2359/203-426-1320; FAX: 203-426-1087. For a free copy of the complete pamphlet send a self-addressed, stamped envelope to the above address and request the pamphlet by title.

Considerations for Storage of Smokeless Powder

Smokeless powder is intended to function by burning, so it must be protected against accidental exposure to flame, sparks or high temperatures.

For these reasons, it is desirable that storage enclosures be made of insulating materials to protect the powder from external heat sources.

Once smokeless powder begins to burn, it will normally continue to burn (and generate gas pressure) until it is consumed.

D.O.T. approved containers are constructed to open up at low internal pressures to avoid the effects normally produced by the rupture or bursting of a strong container.

Storage enclosures for smokeless powder should be constructed in a similar manner:

1. Of fire-resistant and heat insulation materials to protect contents from external heat.

2. Sufficiently large to satisfactorily vent the gaseous products of combustion which would result if the quantity of smokeless powder within the enclosure accidentally ignited.

If a small, tightly enclosed storage enclosure is loaded to capacity with containers of smokeless powder, the wall of the enclosure will expand or move outwards to release the gas pressure if the powder in storage is accidentally ignited. Under such conditions, the effects of the release of gas pressure are similar or identical to the effects produced by an explosion.

Hence only the smallest practical quantities of smokeless powder should be kept in storage, and then in strict compliance with all applicable laws, regulations and recommendations of the National Fire Protection Association (reprinted at end of SAAMI pamphlet).

Recommendations for Storage of Smokeless Powder

STORE IN A COOL, DRY PLACE. Be sure the storage area selected is free from any possible sources of excess heat and is isolated from open flame, furnaces, hot water heaters, etc. Do not store smokeless powder where it will be exposed to sun's rays. Avoid storage in areas where mechanical or electrical equipment is in operation. Restrict from the storage areas heat or sparks which may result from improper, defective or overloaded circuits.

DO NOT STORE SMOKELESS POWDER IN THE SAME AREA WITH SOLVENTS, FLAMMABLE GASES OR HIGHLY COMBUSTIBLE MATERIALS.

STORE ONLY IN DEPARTMENT OF TRANSPORTATION APPROVED CONTAINERS. Do not transfer the powder from an approved container into one which is not approved.

DO NOT SMOKE IN AREAS WHERE POWDER IS STORED OR USED. Place appropriate "No Smoking" signs in these areas.

DO NOT SUBJECT THE STORAGE CABINETS TO CLOSE CONFINEMENT.

STORAGE CABINETS SHOULD BE CONSTRUCTED OF INSULATING MATERIALS AND WITH A WEAK WALL, SEAMS OR JOINTS TO PROVIDE AN EASY MEANS OF SELF-VENTING.

DO NOT KEEP OLD OR SALVAGED POWDERS. Check old powder for deterioration regularly. Destroy deteriorated powders immediately.

OBEY ALL LAWS AND REGULATIONS REGARDING QUANTITY AND METHODS OF STORING. Do not store all your powders in one place. If you can, maintain separate storage locations.

Many small containers are safer than one or more large containers.

KEEP YOUR STORAGE AND USE AREA CLEAN. Clean up spilled powder promptly. Make sure surrounding area is free of trash or other readily combustible materials.

How to Check Smokeless Powder for Deterioration

Powder deterioration can be checked by opening the cap on the container and smelling the contents. Powder undergoing deterioration has an irritating odor. (Don't confuse this with common solvent odors such as alcohol, ether and acetone.)

The best way to dispose of deteriorated smokeless powder is to burn it out in the open at an isolated location in small shallow piles (not over 1" deep). The quantity burned in any one pile should never exceed one pound. Use an ignition train of slow burning combustible material so the person may retreat to a safe distance before powder is ignited.

Primer - WARNING

Instructions & Warning for the Safe Storage and Handling of Primers

It is the responsibility of all persons who receive, store and use primers to be aware of the hazards and to know and follow all approved safety procedures. It is your responsibility to strictly comply with all applicable federal, state and local laws, regulations and ordinances.

Properties of Primers - DANGER

BULK STORAGE OF PRIMERS IS EXTREMELY DANGEROUS!!

Primers should never be stored, handled or used in bulk; i.e. piled or poured together. The energy of one exploding primer is sufficient to cause mass detonation of the surrounding primers. This could result in property damage and serious injury or death to operators and/or bystanders.

Note: Primers Should Always Be Kept In Their Original Factory Containers.

Primers contain mixtures of chemical ingredients designed to explode and provide the necessary energy in the form of hot particles, heat, & gas to ignite propellant powders.

Primers are sensitive to the following:

Impact, Friction, Heat, Flame, Static Electricity, and Mishandling abuses.

Conditions which may cause misfires or poor ignition:

- Exposure to water
- Exposure to organic solvents such as paint thinner, gasoline, oil, grease, penetrating lubricants, etc.
- Exposure to temperatures above 140 degrees Fahrenheit

Primers subjected to shaking, vibration, jolting, etc. may separate small particles of priming compound. This is referred to as "dusting". Accumulation of primer dust in primer feeds, on machine surfaces, in loading areas, etc. is extremely dangerous. Primer dust may cause fires and/or explosions due to heat, impact, friction, flame or static electricity. These areas must be kept very clean.

Storage of Primers-- Store in a Cool Dry Place

BULK STORAGE OF PRIMERS IS EXTREMELY DANGEROUS!!

Primers should never be stored, handled or used in bulk; i.e. piled or poured together. The energy of one exploding primer is sufficient to cause mass detonation of the surrounding primers. This could result in property damage and serious injury or death to operators and/or bystanders.

Note: Store Primers in a Cool Dry Place Away From Heat, Sparks & Flame.

Cabinets designated for primers only are recommended. They should be constructed of materials designed to provide a substantial delay in the transmissions of heat in case of fire.

The storage area should be clean and free of other combustible materials such as propellant powders, solvents, flammable gases, etc. Avoid areas which may be subjected to high temperatures, open flames, furnaces, water heaters, direct sunlight, gunfire and bullet impact, the operation of mechanical or electrical equipment and static electricity. Primers should be stored in original factory containers only. The packaging has been designed to minimize accidental ignition and to protect the consumers as well as the primers.

NEVER SMOKE IN PRIMER STORAGE AREAS.

Observe all federal, state and local laws, regulations and ordinances regarding quantities of primers stored and conditions of storage.

Handling of Primers - Handle with Care

BULK HANDLING OF PRIMERS IS EXTREMELY DANGEROUS!!

Primers should never be stored, handled or used in bulk; i.e. piled or poured together. The energy of one exploding primer is sufficient to cause mass detonation of the surrounding primers. This could result in property damage and serious injury or death to operators and/or bystanders.

Safety glasses should be worn at all times. Additional protection such as face shields and machine guards are also recommended for personal safety.

NEVER SMOKE WHILE HANDLING PRIMERS.

Primers are extremely sensitive and should always be handled with care.

Primers should be handled individually with adequate safeguards. The use of primer feeds for reloading is not recommended. Adequate protection from the danger of explosion must be provided by machine guards, barriers, etc.. Primer feeds allowing contact between or among individual primers cause a potentially dangerous condition and are to be avoided. One exploding primer could cause detonation of all primers in the area.

Do not decap live primers. It is recommended live primers be destroyed by firing the empty shell or cartridge in a suitable firearm.

Areas designated for the storage and/or handling of primers should require equipment and wiring methods suitable for

hazardous locations (National Electrical Code, Class II, Div. I). Persons responsible for these areas should also observe and comply with all applicable federal, state and local laws, regulations and ordinances pertinent to their location.

Precautions should be taken to prevent the accumulation of static electricity on persons handling primers or conducting handloading procedures. Cotton clothing, conductive shoes & floors, individual ground straps, static bars, leg stats, and proper electrical/mechanical grounds all help to reduce, dissipate and/or eliminate the buildup of static electricity. Atmospheric conditions, especially low humidity, will increase the potential of static accumulation. The working area should be maintained at a comfortable temperature with a relative humidity of at least 60% to minimize static buildup and/or discharge.

Good housekeeping is a must for safe cartridge loading and primer handling. Equipment and work areas should be kept clean and free of loose primers, primer dust, propellant powder, and/or abrasive materials. A damp cloth or sponge should be used to clean contaminated areas and be thoroughly rinsed after use. Do not use a vacuum cleaner because fire or explosion may result.

Loading operations should be conducted with a minimum quantity of primers. Unused primers should be returned to the original package and placed in a designated safe storage area.

It is common sense to make primers unavailable to children, household pets, and any individuals that are not familiar with the potential danger of primers.

Never smoke or allow open flames, spark sources or hot particles near primers or loading areas.

Additional References:

- Sporting Arms & Ammunition Manufacturer's Institute (S.A.A.M.I.)
- National Electrical Code (NEC)
- National Fire Protection Association (NFPA) 495, Explosive Materials Code
- Occupational Safety & Health Administration (OSHA)

WARNING: DO NOT INTERCHANGE FEDERAL 209 AND FEDERAL 209A PRIMERS

Reloading Precautions – WARNING

Follow these precautions to assure maximum enjoyment and safety in reloading and uniform performance of your reloads. Remember you can suffer severe burns, be badly injured, or killed if the strictest safety precautions and housekeeping rules are not enforced.

1. Exercise care at all times. Wear safety glasses while reloading.
2. Never smoke while handling powder or primers or during any reloading operation.
3. Keep powder and primers away from heat, sparks and open flames.
4. Store powder in a cool, dry place at all times.
5. Never use a powder unless you are certain of its identity.
5. -Always read warnings on powder and component container labels.
5. -Always read and understand the instruction manual for your reloading machine/tools.
5. -Always reload in strict compliance with instructions in current reloading manuals.
6. Do not mix powders.
7. Devote full attention to reloading operations-- avoid distractions.
8. Keep powder and primers out of reach of children.
9. Use components as recommended; don't take shortcuts.
10. Never exceed maximum recommended loads.
11. Examine every shell or cartridge before loading to insure good condition.
12. Double check every operation for safety and uniformity.
13. Check powder charge level in shells to avoid double charges.
14. On centerfire loads, start with charge weights 10% below recommended maximum loads.
15. Always watch for indications of excessive pressure.
16. Do not decap live primers; it is safer to destroy them by firing the empty shell or cartridge in a firearm.
17. Do not substitute components, except bullets of the same type and weight from reputable manufacturers. It could result in a significant change in ballistics, and unsatisfactory or even dangerous load.
18. Observe all local fire regulations and codes with respect to quantities of powders and primers stored and conditions of storage.
19. Store powder in its original container. Never transfer it from one storage container to another since this increases the possibility of becoming mislabeled.
20. Do not use the shotshell data contained in this handbook with steel shot; to do so would cause an extremely dangerous condition. Steel shot requires the use of special data, wads and powders.

When such components become available, Winchester will develop data specifically for steel shot.

WINCHESTER® COMPONENTS CATALOG



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