



December 26, 1998

TECHNICAL NOTE 23: BULLETS SUITABLE FOR ARMALITE .243 CALIBER AR-10 RIFLES

Reliable function of a semiautomatic rifle depends on a careful balance of the characteristics of both the rifle and the ammunition used in it. Too little powder, powder of the wrong burn rate, or too light a bullet, can lead to sluggish functioning. Too much powder, powder of the wrong burn rate, or too heavy a bullet may result in high pressures at the gas port, and excessively violent action.

FACTS:

ArmaLite AR-10 rifles were designed to function with .308 caliber bullets with a fairly wide range of weights. The smaller bore volume of AR-10 barrels is caliber .243 are not as forgiving. There is naturally less flexibility in bullet selection in a .243 than a .308.

ArmaLite .243 caliber AR-10 rifles are designed to reliably function with 80- and 100-grain bullets using twist rate of 1 turn in 12 inches and a gas port of .075". Use of bullets of other weights may require modification of the gas port by a gunsmith. Modification, however, will void the ArmaLite warranty.

ArmaLite offers rifles that are tailored to a wide range of bullet weights. ArmaLite's M-15 rifles shoot factory ammunition with 40- to 69-grain bullets accurately and safely. .243 caliber AR-10's handle 80- to 100-grain bullets well, and .308 caliber rifles fire bullets up to 175 grains excellently.

RECOMMENDATION:

ArmaLite recommends using a rifle tailored to the bullet weight and cartridge desired, rather than trying to shoehorn bullets of all weights through a rifle, barrel, or gas mechanism not optimized for them.

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