

5. How do I choose the “best” bullet for my rifle? What’s so important about stability Sg?

Firstly, it is very important to declare the application; Hunting or Target?

The next most important thing is to know your barrel twist rate. A bullet’s stability has significant influence on a bullet’s Ballistic Coefficient and potentially accuracy. Choosing a bullet that matches your rifle barrel twist will ensure optimum performance. Remember, an 11” twist is faster than a 12” twist barrel.

12” twist bullets will work perfectly well in a faster 11” twist barrel, but may not in a 13” twist barrel, especially on the coast where air pressures are highest.

ALL OEP bullets are designed to have an Sg of 1.5 (on the Miller scale) or higher when used in conjunction with the recommended twist.

Rule 17 - Displacement

Most conventional (gilding metal jacketed lead) bullets have a combined Specific Gravity of around 10.5 - 10.7, depending on jacket thickness and the alloys used.

Pure copper has a Specific Gravity of 8.94

So what does this mean?

- (a) Copper bullets take up more space than conventional bullets
- (b) Copper bullets fly at very similar velocities to conventional bullets of the same weight.
- (c) The important thing to remember is that hunting bullets work best through their capacity to displace material in both permanent and temporary wound channels.
- (d) Therefore, to compare copper bullets with conventional bullets (using the maths above) for static displacement, multiply the weight of the copper bullet by at least 1.17 (17%) for an approximate equivalent. For example;
 - i. a 308 copper bullet weighing 150 grains will have a roughly equivalent displacement of a 175 grain conventional bullet
 - ii. remember of course that the 150 grain copper bullet will be travelling much faster out of the same case
- (e) It should also be remembered that properly designed copper bullets that fully expand without shedding their petals will have full weight retention, maintaining maximum momentum and displacement capabilities (making bigger holes!)
- (f) Even the best conventional expanding hunting bullets will shed weight on impact, reducing momentum and penetration capacity
- (g) Clearly, OEP copper hunting bullets have the advantage in maximum displacement capacity

Rule 17 - Twist Rates

Rule 17 can also be useful as a general rule of thumb when comparing copper bullets with conventional hunting bullets in the selection of suitable barrel twist rates.

For example, most 175 grain conventional bullets, and certainly the 150 grain OEP hunting bullets will stabilise perfectly well in a 1/11" twist barrel.

So, in short, take heaviest bullet your rifle will shoot well, reduce that weight by 17%, and you will have a great choice when selecting an OEP copper hunting bullet equivalent.