



BBCOR Bats

BBCOR (Bat Ball Coefficient of Restitution) is the new standard that will be used to certify bats for high school and college play. The idea behind this standard is to make aluminum and composite bats play more like wood bats. This standard went into effect for college on 1/1/2011, and for high school on 1/1/2012. Any bat with a BESR (Ball Exit Speed Ratio) stamp is not allowed to be used in college games as of 1/1/2011, and in high school games as of 1/1/2012.

Instead of measuring the speed of the ball after it is batted, BBCOR measures the "bounciness" of the ball and bat, or the "trampoline" effect. Whenever a bat hits a ball during a game, the ball actually compresses by nearly a third. A pitched ball holds a lot of energy that you can see in the spin and speed of the ball. With solid wood bats, much of that energy is lost as the ball compresses at impact. The batted ball speed gets a lot of its energy from the bat. With hollow-core aluminum or composite bats, the thin walls "give" a little, and the ball distorts less and retains its pitched energy and adds to it the power of the bat speed. That's why non-wood bats hit balls faster.

The loss of energy at collision is what BBCOR measures. The less energy lost, the faster the ball speed after it gets launched off the bat.

Still Confused?

A simple way to think of BBCOR is to jump up and down on a hard floor. It takes a lot of energy in your legs to get off the ground. The floor doesn't help at all. Contrast that feeling by jumping on a trampoline. Even with very little energy from your body, you will still get a bounce because that energy isn't being absorbed by the trampoline. Instead, the trampoline is flexing with the impact and then "bouncing" back to its original shape, thus launching you higher into the air.

What does this mean for baseball?

It's that faster flight that has changed the game of baseball over the last several years. Home runs are far more common today as they were 20 years ago. With a 10-15% decrease in bat performance, the game will be much more balanced among all players. Slower balls will also address some of the safety concerns that have become more prevalent in recent years.

According to their own explanations of the new standard, both the NCAA and NFHS want all bats to have the same performance factors as the best wood bats. While it may still be cost effective to purchase aluminum or composite bats that will last longer than wood bats, it won't necessarily make you a better batter. You'll have to swing faster and more accurately to get the same hits as before.

Does this mean I need a new bat?

If your team plays under NCAA or NFHS guidelines, **yes**. You probably need a new bat. Fortunately, bat manufacturers have been able to adjust their designs with very little notice. The first BBCOR-certified bats started swinging into the warehouses in August 2010.

Manufacturers are modifying aluminum and composite bats to make the walls stiffer. Sometimes they are actually inserting a block behind the sweet spot so it won't flex as much. Other times they are simply adding thickness to the wall.