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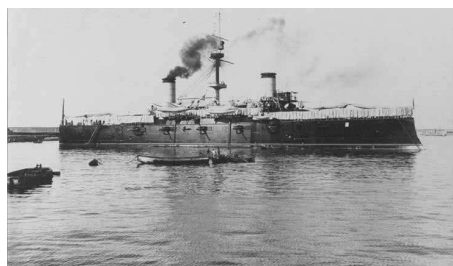
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The core component of any shotshell, the powder is what most think about when it comes to loading. No manufacturer in the world can equal our history of R&D into cartridge powder technology.



Spanish Armored Cruiser, Cristóbal Colón, 1896-1898

Dating back well over a century, our rich history has its roots in the production of military gunpowder for the Spanish Navy.

Since that time, we have remained a leader in the explosive propellant sector — incorporating the latest technological advances across all of our manufacturing processes. As a result, our powders are being used by the world's top names in the manufacture of their premium sporting cartridges.

Thanks to our dual role as a manufacturer of both powder and sporting shot shells, we are pleased to offer two primary types of smokeless powders - CSB and PSB.

Thanks to the uniformity of the flakes and their graphite treatment, the CSB and PSB gunpowders allow precise dosing even in the fastest and most sophisticated filling machines, whatever the speed of operation.

Rio guarantees that all batches of commercial powder will produce the expected speed and pressure of the shot shells in which they are used. Our confidence in our product performance is rooted in relentless testing on **EVERY** batch.

You heard right... each batch is subjected to rigorous quality control to verify its physical characteristics (dimensions and relative density), chemical characteristics (composition, ash and stability) and ballistic characteristics. The ballistic testing merits special attention - carried out on the most advanced instruments and allowing us to verify the performance of the powder in every production run.

In order to monitor the performance of each batch, live firing tests are performed with shotshells in a gallery. These tests measure the ballistic characteristics of ten cartridges loaded with the powder being tested compared to another ten which are loaded with a control batch. The average and standard deviation of the pressure and velocity are calculated. In addition, five shots are made with a shotgun to compare the ignition flame and combustion residues.

Physical Properties

Rio's PSB and CSB powders are single-based propellant explosives manufactured from high nitrogen content nitrocellulose which has been properly gelled and stabilized.

CSB powders are cut in disks about 1.7 mm. in diameter and 0.30 mm. thick. PSB powders are cut in squares about 1.9 mm. of side and 0.24 mm. thick



Powder Selection and Application Guide

Matching the right powder to the intended target and shooting conditions is critical to optimal performance and consistency...

• TYPE 1:

It can be enclosed in the semi-progressive propellants as it provides excellent ballistic performance for a wide range of shot weights. It is specially recommended for loading 32 to 34 g. shotshells.

• TYPE 2:

Is a highly progressive propellant that burns in a fully regular fashion. It is indispensable for loading shotshells with a high shot weight (over 34 g.). Achieves high residual velocities at moderate pressure values.

• TYPE 3:

A fast burning powder specially indicated for loading low shot weight shotshells (up to 32 g.)

• TYPE 5:

Specifically designed for loading shotshells used in competition events (TRAP, SKEET, DOUBLE TRAP, etc.) with 28 g. shot charges. It is indispensable for good shooting shotshells due to the perfect burning and excellent ballistic properties.

• TYPE 6:

Developed specially to load 24 g. shotshells for competition events. Excellent shotshells for TRAP and SKEET shooting.

