GOEX Cowboy Powder

According to GOEX's Internet Message board this GOEX Cowboy Powder was developed over a two year period in conjunction with the Black Dawge Cartridge Company.

It is claimed that this powder was developed specifically for brass cartridges with a case capacity no greater than 40 grains of powder. These pistol cartridges being used in Cowboy Action Shooting competition.

In May of 2004 (5) pounds of this Goex Cowboy Powder was purchased from Powder, Inc. The distributor stated that this Cowboy Powder is little more than regular 2Fg with some fines added".

Loading Density.

Goex Cowboy powder
Lot 06-01, Packing Date 04AP12B

Using the standard powder measure calibrated to throw 100 grains of water at the 100 setting. Set at 100 for this work.

As poured.
1. 100.4 grains weight
2. 101.6 grains weight
3. 100.7 grains weight
4. 101.7 grains weight
5. 101.0 grains weight

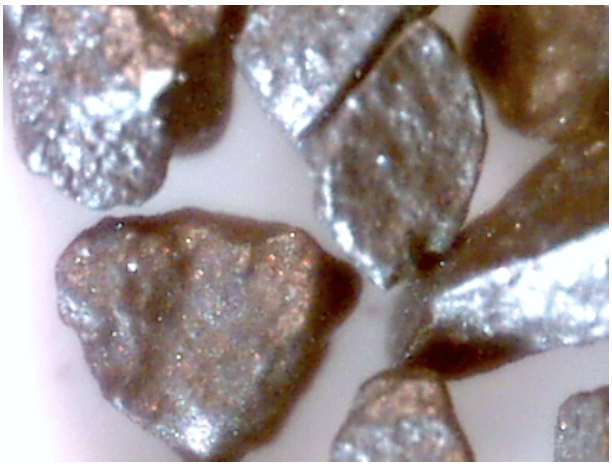
101.1 ave.
0.0648 x 101.1 grains = 6.55 grams
6.55 grams divided by 6.40 = 1.02 g/cc
1.3 variation in throws from the measure

Settled.
1. 105.5 grains weight
2. 103.2 grains weight
3. 102.2 grains weight
4. 106.5 grains weight
5. 105.0 grains weight

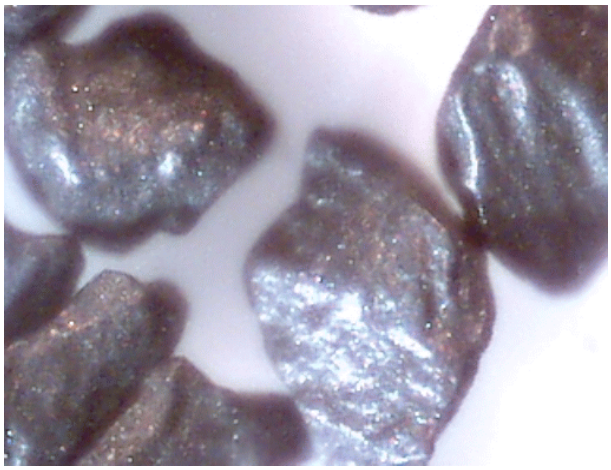
104.5 ave.
0.0648 x 104.5 = 6.77 grams
6.77 grams divided by 6.40 = 1.06 g/cc
4.3 variation in throws from the measure.

This loading density is on the upper end of the range normally seen in Goex powder production, 1.00 g/cc to 1.05 g/cc.

Microscope photos of Cowboy Powder grains.



At 60X magnification, view #1.



At 60X magnification, view #2.

Microscopic examination of the powder grains shows a higher degree of grain polish than is normally seen on Goex black powder. This would be expected in view of the high, for Goex, loading density.

It is not known if this higher degree of grain polish is part of the powder's concept or if it is just an odd lot just polished better than is normal for Minden production.

Screens.

The distributor stated that this powder was “nothing more than 2Fg with some fines”.

2Fg is normally screened to pass through a 16 mesh screen and stop on a 30 mesh screen. Using a 20 mesh screen to divide that range will show if a lot is coarse or fine for the size designation.

Using 500 grains weight of powder with laboratory hand sieves.

Goex Cowboy, Lot 06-01, Packing date 04AP12B
32.9% retained on 20 mesh.
64.9% retained on 30 mesh.
2.2% thru the 30 mesh.

Goex 2Fg, Lot 02-95, Packing date 03AU18B
72.9% retained on 20 mesh.
27.1% retained on 30 mesh.
Trace through 30 mesh.

The data shows that this Cowboy Powder is not simply regular 2Fg with added fines. The data suggests that the corning mill rolls were adjusted to give a finer grain size while still being with the 16 mesh to 30 mesh grain size parameters in 2Fg screening. The Cowboy Powder is in essence simply a finer version of the regular 2Fg powder.

Velocities.

Shooting on May 17, 2004
Temp. 75 F, R.H. 70%

.50 caliber Lyman Trade Rifle, 28" barrel.
Percussion ignition, CCI #11 Magnum caps.
.490 Speer balls with .018" #40 cotton drill.
Lehigh Valley Shooting Patch Lubricant.
CED Millennium Chronograph on sunlight 15 feet from the muzzle.
Charges by volume using an adjustable measure calibrated to throw 100 grains weight of water at the 100 setting.

80 volume measure charges.

Goex Cowboy powder, Lot 06-01, Date Code 04AP12B
1521, 1528, 1503, 1536, 1506: 1519 fps ave., ES = 33

Goex 2Fg, Lot 02-95, Date Code 03AU18B
1411, 1456, 1439, 1415, 1397: 1424 fps ave., ES = 59

Goex 3Fg, Lot 03-10, Date Code 03MY01B
1533, 1562, 1540, 1576, 1567: 1556 fps ave., ES = 43

Schuetzen 3Fg, First shipment
1528, 1510, 1530, 1573, 1499: 1528 fps ave., ES = 74

Under today's atmospheric conditions, using damp cleaning patches, the Schuetzen powder appeared to give less bore fouling than any of the Goex powders based on the lack of fouling collected on the patches which would not dissolve into the patch.

1424 fps ave., GOEX 2Fg
1519 fps ave., GOEX Cowboy Powder
1556 fps ave., GOEX 3Fg

The basic concept behind this Cowboy Powder is a simple one. The Cowboy Action shooters do not like recoil while shooting.

Loading the smaller pistol cartridges with 2Fg produced a good bit of fouling. In most cases the cartridge does not produce enough pressure to flex the case mouth out enough to prevent fouling from blowing back around the case. To load these cartridges with 3Fg produced more recoil and sometimes results in a hard fouling being left in the bore.

With the finer grain 2Fg as the concept behind the Cowboy powder the action of the powder, in the cartridge, is something of a compromise between the behavior of 2Fg and 3Fg in these cartridges.

In this powder Goex is essentially filling a niche in the market and not a very large one at that.

William A. Knight