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# ALLIANT'S POWER PRO 300-MP

## PROPELLANT PROFILES

by R.H. VanDenburg, Jr.

**K**eeping up with the changes in the U.S. smokeless powder scene is getting to be quite a job. Alliant Powder, which was formally the Hercules Powder Company and is now part of Alliant Techsystems of Minneapolis, Minnesota, manufactures and markets double-base smokeless powders for the canister trade. Such stalwarts as Bullseye, Red Dot, Green Dot, Blue Dot and 2400, among several others, all come from the Alliant facility in Radford, Virginia. Alliant also markets its Reloder line of extruded, double-base, rifle propellants that are manufactured by Bofors, the Swedish powder manufacturer. The latest of the Reloder line, Reloder 17, comes from a Swiss company, Nitro Chemie.

Now Alliant has announced its entry into the spherical powder battleground with an entirely new series of powders called Power Pro. Presently, the series consists of five powders: 300-MP (magnum pistol), 2000-MR (medium rifle), 4000-MR (magnum rifle), VARMINT (light rifle) and 3000-LR (large rifle). The powders are manufactured in the U.S. by St. Marks Powders – a sub-

siary of the U.S. defense contractor, General Dynamics – in St. Marks, Florida.

The first of the series to arrive here for testing was Power Pro 300-MP. I was delighted to find it fit into one of the few spots in the handloading powder array where I felt we could actually use a new powder. Power Pro 300-MP is a bit slower than Hodgdon's H-110 and Winchester's 296 but faster burning than IMR's SR-4759. In speaking to Alliant staffers, I found the powder to be a derivative of the St. Marks non-canister SMP 297. This really rang a bell, as back when the Olin Corporation spun off the St. Marks facility into a separate subsidiary, PRIMEX Technologies, Inc., I was informed by the PRIMEX folks that SMP 297 was "296 with a flash suppressant." SMP 297 was an OEM powder sold primarily to companies loading ammunition for law enforcement and other entities for whom a flash suppressant is important. I don't know how 300-MP ranks regarding a flash suppressant additive compared to the original SMP 297, but at the range recently as the sun was setting, balls of fire could be seen emitting from the muzzles of several revolvers as 300-MP was being tested, although the amounts seemed to be less than with a number of other similar powders.

Anyway, Power Pro 300-MP is a double-



base, spherical powder with a nitroglycerin content of about 10 percent and a bulk density of approximately .950 g/cc. Granules are very small and flattened, essentially indistinguishable from H-110 and W-296. As expected it meters very well.

With the powder came some load data for the .22 Hornet and several revolver cartridges from the .357 Magnum to the .500 S&W Magnum. In *Handloader* No. 263, writer Stan Trzoniec, in his fine piece on the .22 Remington Jet, settled on H-110 and W-296 as his propellants. He may want to go back and try some 300-MP. It also might be quite useful in the .22 K-Hornet and the .218 Bee. I was somewhat surprised to find the Alliant data called for standard strength primers throughout with the exception of the .500 S&W Magnum, where large rifle magnum primers were employed.

It has long been my experience that spherical powders perform better with magnum strength

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### Author's Selected Loads Alliant's Power Pro 300-MP

	bullet (grains)	charge (grains)	velocity (fps)
.357 Magnum	158	17.5	1,308
.41 Magnum	220	20.0	1,202
.44 Magnum	240	24.0	1,462
	270	21.0	1,271
	300	21.0	1,225
.45 Colt	300	24.0	1,207

**Notes:** The .45 Colt load is for Ruger or Freedom Arms revolvers only. Not for use in the Ruger New Vaquero. Magnum strength primers used exclusively.

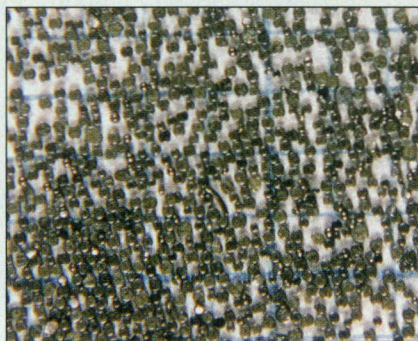
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spark plugs, especially as temperatures drop. Accordingly, I used them, backing off from maximum charges to start, but also did some side-by-side testing with standard and magnum primers in otherwise identical loads. In every case the magnum-primed loads gave higher velocities, smaller extreme spreads and tighter groups. The velocities with the magnum primers averaged about 50 fps higher, ranging from 40 to 60 fps, depending on the cartridge and bullet weight. In my case, to be fair, the temperatures were in the low 30s, high 20s.

Throughout the tests, my barrel lengths were shorter than Alliant's and the midpoint of the start/stop chronograph screens was 12.5 feet from the muzzles. Still, my maximum loads were very close to those published.

In the .357 Magnum, Alliant listed loads for 125-, 158- and



170-grain bullets. I chose the 158, starting with 17.5 grains and clocking 1,308 fps from a 4 $\frac{1}{2}$ -inch barrel. Another grain (18.5) added another 100 fps (1,410 fps). I actually preferred the lighter load as generally more pleasant and suitable for most purposes.

The .41 Magnum was not listed, but I paired 300-MP with Speer 220-grain bullets. Twenty grains gave 1,200 fps, about maximum in my gun. H-110 might produce higher velocities here, but 300-

MP duplicates top 2400 velocities at lower pressures.

The .44 Magnum may be the perfect vehicle for 300-MP. It gave exceptional performance throughout with 240-, 270- and 300-grain bullets. I particularly liked 300-MP with Speer 300-grain jacketed bullets, easily exceeding 1,200 fps with 21.0 grains and hitting 1,300 fps with 22.0 grains. With the Speer 270 grainers, 21.0 grains recorded 1,271 fps; a maximum load of 22.0 grains, 1,350 fps. The 21.0-grain load was very pleasant and would likely do all I need doing.

I had asked about the absence of .45 Colt data (for strong single actions such as the Ruger or Freedom Arms) and was told the powder was likely too slow. They hadn't tried it, I suspect, but my first attempts were quite promising. I paired Starline cases and

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## Propellant Profiles

(Continued from page 31)

LBT 300-grain cast bullets with 300-MP. A 5½-inch barreled Ruger produced 1,100 fps with 23.0 grains; 24.0 grains upped speeds to 1,200 fps, the velocity I was

looking for. My usual load of this type consists of 23.0 grains of H-110 for 1,200 fps. Here was a good comparison of the two powders: an additional grain of 300-MP duplicated the H-110 performance and for some reason

recoil seemed softer. It might have been my imagination.

Suffice it to say these tests are preliminary. I'll be trying this new powder a good deal more in the future. It is available in one- and 8-pound containers.

## Accurate No. 2

It wasn't long ago on these pages it was announced that Western Powders of Miles City, Montana, marketer of the Ramshot and Accurate lines of canister smokeless powders for reloaders, was making some changes. First, the entire extruded, single-base line of Accurate powders is now being manufactured in Canada at the Ontario facility that manufactures the IMR line of powders. Thus far we've had the opportunity to review Accurate's 4064 and 2015 from the new source. Results, which appeared in *Handloader* Nos. 262 and 263, respectively, indicated a very consistent changeover.

Now, another change, with the source of Accurate's ball powders being moved from the Czech Republic to the St. Marks, Florida, powder plant. This facility, built in 1972 by the Olin Corporation, originally produced Winchester powders. In the 1990s, Olin spun off its powder manufacturing capacity into a subsidiary called PRIMEX Technologies, Inc. More recently, PRIMEX was purchased by American defense contractor General Dynamics, which now owns both the St. Marks and Ontario plants. This means that before long the sources for all Accurate powders likely will be in North America and American owned.

I selected Accurate No. 2 as the first from the St. Marks facility to be reviewed. I had tested No. 2 in 2008 with the results appearing in *Handloader* No. 254, and I was anxious to see if Accurate was able to hold the new ball powder

lots as closely to the old as it had in the changeover of extruded powders.

As noted back then, Accurate No. 2 is a very fast burning, double-base, spherical powder introduced in May 1988. It has undergone a couple of name changes,



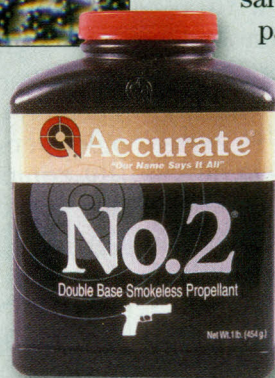
and St. Marks is the third different source that been has used for Accurate powder. Hopefully, it will be the last. The nitro-glycerin content is about 13 percent; the bulk density is .650 g/cc. Previously I tested No. 2 in a half-dozen cartridges. This time I was able to add two more.

Naturally, in shooting the old and new lots side by side, I got slightly different velocities. Even the old lot produced different velocities this time than it did last time, but the differences were slight. Velocities for the new lot,

### Author's Selected Loads Accurate No. 2

	bullet (grains)	charge (grains)	velocity (fps)
.25 ACP	35	1.8	969
	50	1.5	808
.32 ACP	60	2.6	970
	71	2.2	842
.38 Special	148	3.0	750
.40 S&W	155	6.5	987
.44 Russian	240	3.5	662
.44 Special	240	4.7	742
.45 ACP	200	5.5	868
.45 S&W	240	6.0	803

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and even the old lot this time around, were slightly lower. This was due to considerably colder weather and a different muzzle to midpoint of the chronograph start/stop screens. For the first tests it was 10 feet from the muzzle to the midpoint; this time it was 12.5 feet. It was a mistake on my part not to have kept it the same. Still, the new lot compared very favorably to the old, as I assumed it would.

The cartridges used in the previous review – the .25 ACP, .32 ACP, .38 Special, .40 S&W, .44 Special and .45 ACP – are listed with the velocities obtained using the new St. Marks manufactured No. 2. The new cartridges added this time, the .44 Russian and the .45 S&W, were not shot with the old lot for comparison.

As I said before, No. 2 is a very efficient and clean-burning powder. It produced quite good accuracy in all the cartridges tested. We can't ask for much more than that.