

Advanced Plating Technologies:



The new M2A1 Dummy round (left), plating by Advanced Plating Technologies, with the previous version, the M2 Dummy (right). The M2A1 is awaiting hole drilling in the case. Photo © 2014 by Keith Pagel

Advanced Plating Technologies of Milwaukee, Wisconsin exhibited at SHOT 2014, with a small booth showcasing how industrial plating can be useful in the shooting sports, particularly for ammunition components; bullets and cases. Founded in 1948, APT has engineered numerous functional coatings, specifically for the ammunition industry, including their proprietary Ducta-bright 7a nickel, Techni-crom® and Black-XPD coatings.

Advanced Plating Technologies offers a wide range of functional coatings for casings and projectiles. The primary function of their coatings is in the areas of corrosion prevention and metal on metal lubrication. There are even less obvious applications, however, such as the identification of ammunition (cali-

bers, types and loads). APT is, in fact, a subcontractor to the US military in plating the new line of DDI (Dummy, Drilled, Inert) ammunition.

An incident a few years back led the US military to adopt a new design of dummy rounds for training, cycling tests and armory work. A live round made it into a training scenario, which resulted in an unintended discharge. Up to that incident, military dummy ammunition, of all calibers (pistol, rifle and machine gun), consisted of what looked like ordinary ball rounds, but that were lacking powder, primer and primer flash hole. The .50 dummy also had drilled cases, three holes just below where links wrapped around the cartridge. Apparently these dummy rounds, a design that had been in use for decades, looked just too much like ball rounds during this incident, allowing some live ball rounds to get accidentally mixed in with the dummy rounds. An investigation into this incident triggered the Department of Defense to release new guidelines on production and identification of dummy rounds, to prevent future confusion.

The new specifications go beyond the existing features of a dummy round, by requiring that the entire cartridge and projectile be permanently plated in a durable nickel finish that is engineered to withstand multiple load and unload cycles, in weapons of a given caliber. Also, the new specs require, where feasible, flutes to be impressed (longitudinally) in the cartridge's case. These specifications apply to the 9mm pistol, 5.56 NATO, 7.62 NATO and .50 BMG caliber dummy rounds. Thus, the WW2 vintage, .50 BMG caliber, M2 Dummy cartridge is now the M2A1 Dummy, without powder, primer, or primer flash hole, and is drilled, fluted and nickel plated.

If your ammunition loading (or reloading) could benefit from identification, corrosion prevention, friction reduction, or just needs a signature finish making it completely "yours," Advanced Plating Technologies can be of service for production runs of 1M pieces or more. ISO 13485 & 9001:2008 certified and ITAR registered, APT has electroplating and powder coating experience in not only the ammunition component industry, but in the power transmission/distribution, medical, telecommunications, petrochemical and defense industries as well.

If Uncle Sam can trust their work, you can too.



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