

HOLLOW POINT PELLET Specs & Performance Chart: .22cal / 5.5mm

Principles for Effective Hollow Point Performance

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■ What kills is a **Permanent HOLE** in the quarry – nothing else = the permanent wound cavity, not simply “energy.”

■ For the HOLE to kill – it must be in the **right place** in the quarry (**shot placement!!**).

■ Better HOLES are made by

- **larger,**
- **faster,**
- **bulldozer-nose** (= large meplat), and
- **expanding** HP projectiles (that last part is the point of hollow points!).

■ Better hollow point (HP) **expansion** is achieved by

- **faster,**
- **softer** HP projectiles with
- **wider,**
- **deeper** HP cups, and
- **expansion aids** (detachable tips, slits).

■ **Minimum impact velocities** needed to achieve hollow point (HP) expansion:

- **800fps+** on impact: → most .22 HP pellets expand, and well
- **700–800fps:** → many HP expand, and fairly well
- **600–700fps:** → few expand, and often not by much

■ **Exception – if it needs to break through a tough skull:**

In that case the projectile should:

- have higher impact velocity (=threshold velocity)
- be harder lead
- be domed or pointed rather than with large meplat
- have higher sectional density

Abbreviations: ME = muzzle energy in FPE | MV = muzzle velocity in fps | IV = impact velocity in fps | IE = impact energy in FPE | RBFx = rebranded from x | RBAx = rebranded as x | HP = hollow point | ∅ = average | \$ = expensive

Color Coding for Specs Evaluation: Most specs are color coded to indicate if a spec is positive or negative – mostly for *pellet expansion* for a larger permanent wound cavity and for more *tissue crushing*: **green** = very conducive or positive | **black** = normal, or neither exceptionally positive nor negative | **orange** = marginal, somewhat negative | **red** = quite negative

Hollow Point Pellet Specs | Sorted acc. to Weight

Pellet selection made acc. to availability in the US (mostly).

Brand + Quality in color	Gamo	RWS	Crosman	Crosman	Crosman	Gamo	Coal	Norica	Daisy	Gamo	Gamo	JSB	JSB	JSB	H&N	H&N	SIG	Skenco	JSB	Crosman	Norica	Skenco	H&N	H&N	H&N	Skenco	JSB	
Model	PBA Armor (\$)	Super-H-Point	Hollow Point	Piranha	Des-troyer	Rocket (\$)	Hollow Point	Hollow Point, RBFApollo	Hollow Point (@ Spain V.3)	Red Fire (\$)	Expander	Hades	JSB Pred. Polymag Short (\$)	JSB Pred. Polymag (\$)	Hornet (\$\$)	Terminator	Zero Lead	UltraShock Hollow Point	JSB Pred. Metalmag (\$)	Gold Tipped (\$\$)	HollowPoint Copper, RBFApollo	UltraMag Metal Tip	Crow Magnum	Baracuda Hunter	Baracuda Hunter Extreme	NewBoy Hollow Point	Ultra Shock Heavy(\$)	
Weight (gr) [For discrepancies cf. Notes]	10.65	14.20	14.30	14.30	14.30	14.53	14.66	15.00	15.27 ^{V3} 15.40 ^{V2}	15.42	15.42 ^{V2} 15.43 ^{V1}	15.89	15.89	16.00	16.20 ^{V2} 16.00 ^{V1}	16.36	16.66	16.66	17.00	17.40	18.00	18.20	18.21	18.21	18.52 ^{V2} 19.09 ^{V1}	20.37	25.39	
BC (some BC in [brackets] had to be estimated; sources of BC data below)	0.015 / 0.018 ^{36, 37}	0.012 ¹ / 0.011 ^{13, 9gr, 2}	0.020 ⁶⁵ / 0.023 ¹ / 0.013 ⁴ / 0.027 ⁶⁰ / 0.019 ¹⁵	0.014 ¹	0.017 / 0.027 ¹	0.019 ^{1, 37}	[0.017] ?	[0.017] ?	[0.018] ?	0.019 / 0.016 ¹	0.019 / 0.023 ^{36, 37}	0.023 / 0.021 ¹⁰⁵	0.023 ¹	0.024 ⁶⁰ / 0.022 ² / 0.026 ⁹ / 0.028 ^{17, 9gr, 1}	0.024 ⁶⁰ / 0.022 ² / 0.021 ¹	0.020 ⁰⁰ / 0.021 ¹	[0.020] ?	[0.020] ?	0.028 ^{1, 34}	[0.023] ?	[0.021] ?	[0.026] ?	0.021 ^{01, 03, 4} / 0.022 ^{2, 3, 4} / 0.024 ¹ / 0.026 ^{01, 26} / 0.012 ^{5, 12} / 0.012 ^{15, 60} / 0.017 ^{60, 15}	0.025 ² / 0.024 ¹ / 0.026 ^{01, 26} / 0.027 ⁷¹ / 0.028 ²⁶	0.026 ^{V2, 2} / 0.023 ¹ / 0.027 ^{V1} / 0.033 ²⁶	[0.022] ?	0.027 ⁷⁰ / 0.022 ^{76, 7K}	
High Velocity Tests <i>good marginal bad</i>																												
Evaluation of Expansion + Crushing Probability*	2,3,0,6 =-2.5	0,1,1,2 =-2.0	0,1,2,2 =-3.5	0,2,1,3 =-2.5	1,2,1,1 =+0.5	2,4,0,0 =+4.0	?	0,4,1,0 =+1.5	2,1,2,0 =+1.5	3,3,0,0 =+4.5	1,3,0,2 =-0.5	0,5,1,0 =+2.0	2,4,0,0 =+4.0	2,4,0,0 =+4.0	1,4,1,1 =+1.5	0,4,1,1 =+0.5	?	2,1,2,0 =+1.5	2,2,2,0 =+2.0	1,2,3,0 =+2.5	1,1,3,0 =+0.0	0,4,2,0 =+1.0	3,1,1,0 =+3.0	1,3,1,0 =+2.0	1,3,2,0 =+1.5	3,1,1,0 =+3.0	0,4,0,1 =+1.0	
Meplat Width (=flat part of nose)	0.18"= 4.5mm	0.13"= 3.4mm	0.13"= 3.2mm	0.14"= 3.5mm	0.17"= 4.5mm	0.18"= 4.5mm	?	0.17"= 4.4mm	0.17"= 4.0mm	0.18"= 4.6mm	0.17"= 4.3mm	No Meplat 3 Holes	0.18"= 4.5mm	0.18"= 4.5mm	0.17"= 4.3mm	0.18"= 4.5mm	?	0.18"= 4.6mm	0.17"= 4.2mm	0.16"= 4.1mm	0.17"= 4.2mm	0.19"= 4.7mm	0.19"= 4.8mm	0.17"= 4.4mm	0.15"= 3.9mm	0.21"= 5.3mm	0.19"= 4.7mm	
Lead Hardness	Extra!!! Hard ^{50%}	Harder?	Harder	Harder	Harder	Softer?	Harder?	Harder	Softer	Softer	Softer?	Softer	Softer	Softer	Harder	Harder	Softer?	Harder	Softer	Harder	Harder	Harder	Harder	Harder	Harder	Harder	Harder	Softer?
Cup Width If detachable tip: width of main cup, not tip channel w/ Ball	0.15"= 3.9mm	0.12"= 3.0mm	0.09"= 2.3mm	0.07"= 3.0mm	0.16"= 4.0mm	0.15"= 3.9mm	?	0.12"= 3.1mm	0.13"= 3.4mm	0.15"= 3.9mm	0.15"= 3.8mm	40% of 0.16"= 4.1mm	0.14"= 3.5mm	0.14"= 3.5mm	0.14"= 3.5mm	∅0.13"= ∅3.2mm	?	0.10"= 2.5mm	0.14"= 3.5mm	0.14"= 3.5mm	0.14"= 3.5mm	0.10"= 2.4mm	0.14"= 3.6mm	0.11"= 2.9mm	0.08"=1.9 mm; Slits: 0.15"=3.9	0.15"= 3.8mm	0.08"= 2.0mm	
Cup Depth If detachable tip: +add Tip Channel Depth (Narrow) for = Total Depth	0.10"= 2.4mm	0.03"= 0.7mm	0.06"= 1.5mm	0.06"= 1.5mm	0.02"= 0.5mm	0.10"= 2.4mm	?	0.05"= 1.1mm	0.07"= 1.8mm	∅0.05"= +∅0.10"= =0.15" // ∅1.3mm +∅2.2mm =∅3.4mm	?	0.04"= 1.0mm	0.04"= +0.11"= =0.15" // 1.0mm +2.5mm =3.5mm	0.05"= +0.10"= =0.15" // 1.3mm +2.2mm =3.5mm	?	[deep]	0.02"= 0.5mm	?	?	0.05"= +0.10"= =0.15" // 1.3mm +2.2mm =3.5mm	?	0.05"= 1.2mm	?	0.05"= 1.4mm	0.10"= 2.5mm	0.06"= 1.6mm	?	
Expansion Aids: •Slits? (predet. tearing pts.)		!!!! Head Breaks Off		8xSlits Domed								3xHoles Domed			Tip rarely detaches	5x Corners	5x Corners				copper coat=hard					4xSlits		
•Tip Detaches?	Yes				No	Yes				Yes	No		Yes	Yes	Yes	No	No		Yes	Yes			Yes					
Tip: Shape, Material	Short Blunt, CopperBall				Short Blunt, Metal	Short Blunt, CopperBall				Long Sharp, Plastic	Short Blunt, Metal		Long Sharp, Plastic	Long Sharp, Plastic	Long Sharp, Metal	Short Blunt v.2, Metal	Short Blunt, Metal		Long Blunt, Metal	Long Blunt, Metal			Short Sharp, Metal					

ME (FPE) Needed for Various Impact Velocities at Different Ranges (in Yards)

Brand	Gamo	RWS	Crosman	Crosman	Crosman	Gamo	Coal	Norica	Daisy	Gamo	Gamo	JSB	JSB	JSB	H&N	H&N	SIG	Skenco	JSB	Crosman	Norica	Skenco	H&N	H&N	H&N	Skenco	JSB
Model	PBA Armor	Super-H-Point	Hollow Point	Piranha	Des-troyer	Rocket	Hollow Point	Hollow Point, RBFApollo	Hollow Point (@ Spain V.2)	Red Fire	Expander	Hades	JSB Pred. Polymag Short	JSB Pred. Polymag	Hornet	Terminator	Zero Lead	UltraShock Hollow Point	JSB Pred. Metalmag	Gold Tipped	HollowPoint Copper, RBFApollo	UltraMag Metal Tip	Crow Magnum	Baracuda Hunter	Baracuda Hunter Extreme	NewBoy Hollow Point	Ultra Shock Heavy
ME^{MV} for 800fps @ 30y	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.4 ⁹⁴¹	—	—	36.9 ⁹⁵⁵	—	37.4 ⁹⁶²	37.5 ⁹⁵⁵	—	50.7 ⁹⁴⁸
ME^{MV} for 800fps @ 25y	—	—	29.1 ⁹⁵⁸	—	—	—	—	—	—	—	—	30.6 ⁹³²	30.6 ⁹³²	30.4 ⁹²⁵	30.8 ⁹²⁵	33.3 ⁹⁵⁸	33.9 ⁹⁵⁸	33.9 ⁹⁵⁸	30.8 ⁹⁰⁴	33.6 ⁹³²	35.9 ⁹⁴⁸	34.3 ⁹²²	36.3 ⁹⁴⁸	34.1 ⁹¹⁹	34.3 ⁹¹³	39.8 ⁹⁴⁰	46.5 ⁹⁰⁸
ME^{MV} for 800fps @ 20y	—	—	27.4 ⁹²⁹	—	29.1 ⁹⁵⁸	28.4 ⁹³⁸	29.9 ⁹⁵⁹	30.6 ⁹⁵⁹	30.7 ⁹⁴⁷	30.1 ⁹³⁷	30.0 ⁹³⁷	29.1 ⁹⁰⁹	29.1 ⁹⁰⁹	29.0 ⁹⁰³	29.4 ⁹⁰⁴	31.3 ⁹²⁹	31.9 ⁹²⁹	31.9 ⁹²⁹	29.7 ⁸⁸⁷	31.9 ⁹⁰⁹	34.0 ⁹²¹	32.3 ⁸⁹⁴	34.3 ⁹²¹	32.6 ⁸⁹⁸	32.9 ⁸⁹⁴	37.7 ⁹¹⁵	44.6 ⁸⁹⁰
ME^{MV} for 700fps @ 50y	—	—	—	—	—	—	—	—	—	—	—	31.6 ⁹⁴⁷	31.6 ⁹⁴⁷	30.9 ⁹³³	31.3 ⁹³³	—	—	—	29.8 ⁸⁸⁸	34.7 ⁹⁴⁸	—	33.2 ⁹⁰⁷	—	34.1 ⁹¹⁹	33.9 ⁹⁰⁸	42.0 ⁹⁶⁵	45.5 ⁸⁹⁸

