



*Barnes loads were developed using brass fire-formed to fit the Ackley Improved chamber.

*To fire-form brass, use the faster-burning powders and loads from standard .257 Roberts data.

*To properly chamber a rifle for .257 Ackley Improved cartridges, a gunsmith must set the original barrel back about 0.004". The chamber distance from the bolt face to the junction of shoulder and neck is shorter in Ackley Improved rifles than in standard .257 Roberts chambers. This allows standard .257 Roberts ammunition to be safely fired in .257 Roberts Improved chambers.

*The .257 Ackley Improved is a wildcat cartridge, so there is no SAAMI spec for maximum overall cartridge length (COAL). We chose COALs that allowed us to maximize case capacity. Check that the COALs listed for this cartridge will allow the round to fit and feed properly in your particular rifle. Shorten if necessary.

◆ Indicates most accurate load

.257 Ackley Improved

Bullet Weight: 80 gr **Case Trim Length:** 2.223" **S.D.** 0.173
Bullet Style: TTSX BT **Primer:** Fed 210 **B.C.** 0.316
COAL: 2.820" **Barrel Length:** 24" **Twist Rate:** 1:10"
Case: W-W

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
RL 15	43.5	3318	47.5	3577	85
IMR 4007SSC	46.5	3247	50.5	3578	90
◆ H414	47.0	3305	51.0	3601	83
IMR 4350	47.5	3206	51.5	3537	94
Hunter	49.0	3324	53.0	3595	88
Hybrid 100V	48.0	3318	52.0	3636	97

Bullet Weight: 90 gr **Case Trim Length:** 2.223" **S.D.** 0.195
Bullet Style: Banded Solid Spitzer **Primer:** Fed GM210M **B.C.** 0.325
COAL: 2.785" **Barrel Length:** 25" **Twist Rate:** 1:10"
Case: W-W

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
◆ IMR 4350	47.0	3118	51.0	3418	96
H4350	47.0	3185	51.0	3422	93
RL 19	50.0	3160	54.5	3406	100
IMR 4831	48.5	3113	52.5	3371	99
XMR 3100	51.0	3205	55.0	3436	105
H4831SC	51.0	3154	55.5	3389	101

Bullet Weight: 100 gr **Case Trim Length:** 2.223" **S.D.** 0.216
Bullet Style: TSX BT **Primer:** Fed GM210M **B.C.** 0.336
COAL: 2.805" **Barrel Length:** 25" **Twist Rate:** 1:10"
Case: W-W

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
VIT N560	47.0	2961	51.5	3196	92
IMR 4831	45.0	2938	49.5	3175	94
XMR 3100	45.5	2900	50.5	3181	97
◆ H4831SC	46.0	2921	51.0	3140	93
MagPro	54.0	3052	58.0	3285	97
RL 22	48.0	2969	53.5	3248	98

.257 Ackley Improved

Bullet Weight: 115 gr
Bullet Style: TSX FB
COAL: 2.825"
Case: W-W

Case Trim Length: 2.223"
Primer: Fed GM210M
Barrel Length: 25"
Twist Rate: 1:10"

S.D. 0.249
B.C. 0.335

Powder	Minimum		Maximum		
	Charge (grains)	Velocity (fps)	Charge (grains)	Velocity (fps)	Load Density (%)
VIT N560	42.0	2692	47.0	2935	86
IMR 4831	42.0	2717	45.5	2927	89
XMR 3100	41.0	2635	46.0	2910	90
H4831SC	41.0	2626	46.0	2883	86
MagPro	51.0	2846	55.0	3050	94
RL 22	45.0	2765	49.0	2972	92
