

308 Win - Berger VLD 210grn - RS50 41,43grn - 744ms

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RICARICA 308 win - RS50 41.43grn - Berger VLD 210grn - 744ms

WARNING: Since we have no control over equipment or data which may be used with this program, no responsibility is implied or assumed for results obtained through its use. Input data and results may be incorrect or wrong. Therefore the use of this data for loading ammunition can cause serious injury to personell and material. The computer-results had to be checked against data available in current loading manuals.

LOT-TO-LOT VARIATIONS OF POWDERS, PRIMER SUBSTITUTION AND COMPONENT CHANGE OFTEN RAISE PRESSURES TO UNSAFE LEVELS. THE USER MUST ASSUME THE ENTIRE RISK OF USING THIS DATA FOR LOADING PURPOSES.

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User Data: Date:26-apr-2018 Time:22:00:39 File: 308winrs50-bergervld-210grn-41.43grn-744ms.dz

Cartridge / Caliber	.308 Win. (CIP)		Bullet	.308, 210, Berger Hunt VLD #	
Maximum Average Pressure, allowed	4150 bar	60191 psi. (Piezo CIP)	with boattail		
Groove Caliber	7.82 mm	0.308 in.	Bullet Weight	13.61 gm	210.0 gr.
Case Capacity, overflow	3.636 cm ³	56.0 gr. H2O	Bullet Length	37.06 mm	1.459 in.
Case Length	51.16 mm	2.014 in.	Bullet Seating Depth	17.1 mm	0.673 in.
Cartridge O.A. Length	71.12 mm	2.800 in.	Barrel/Tube Length	660.4 mm	26.0 in.
Shot Start / Init Pressure	250.0 bar	3626 psi.	Cross Section Area of Bore	0.4751 cm ²	0.07364 in. ²

Propellant type	ReloadSwiss RS 50				
Charge Weight	2.685 gm	41.43 gr.	Load Density	0.940 gm/cm ³	237.7 gr./in. ³
Heat of Explosion, Potential	3815 J/gm	247.2 J/gr.	Energy Density of Charge	3587 J/cm ³	58780 J/in. ³
Propellant Solid Density	1.61 gm/cm ³	407.15 gr./in. ³	Used Ratio of Specific Heats cp/cv	1.239	
Burning Rate Factor Ba	0.52 1/s		Weighting Factor	0.5	
Burning Function Limit Z1	0.394		Prog.-/ Degressivity Factor a0	1.231	
Factor b	1.565		Bulk Density	0.957 gm/cm ³	242.0 gr./in. ³

Calculated and Estimated Data:

Bullet Shank Seating Depth	12.27 mm	0.483 in.	Capacity Displaced by Seated Bullet	0.781 cm ³	0.0476 in. ³
Useable Case Capacity	2.855 cm ³	0.1742 in. ³	Bullet Travel at Muzzle Exit	626.34 mm	24.66 in.
Loading Ratio("Density") / Filling	98.2 %		Charge Fraction Burnt at Shot Start	1.21 %	

Predicted Data:					
Maximum Chamber Pressure	3988 bar	57847 psi.	Bullet Travel at Pmax	30.1 mm	1.19 in.
at Muzzle Exit:					
Bullet Velocity	744.0 m/s	2441 fps.	Pressure at Muzzle	425 bar	6164 psi.
Bullet Energy	3767 Joule	2779 ft.lbs.	Bullet Barrel Time	1.368 ms	
Propellant Burnt	99.4 %		Ballistic Efficiency	36.8 %	

Additional Data:					
Powder Lot			Primer Type and Lot		
Bullet Lot			Case Manufacturer		
Measured Muzzle Vel., StdDev.			Measured Pressure, StdDev.		

WARNING: Near Maximum Average Pressure - unknown tolerances may cause dangerous pressures !
Real maximum (peak) of pressure is reached while bullet moves within barrel.
End of combustion occurs after the bullet's base passes muzzle.

